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Saier's

GARDEN

MAGAZINE

A MANUAL OF RARE FLOWERS, THEIR SELECTION AND CULTURE

Vol. 3, No. 5.

Dimondale, Mich.

July, 1953

25 Cents



Moat Cottage — Home of Ernest Markham

40 YEARS
of
EXPERIENCE

Time for Lilies and Fall Bulbs
Cultivation of So. African Proteaceae

FRESHLY DUG AMERICAN LILIES

ORDER EARLY. Many kinds always run short at the end of the season, besides if orders are on hand when bulbs are dug, they can be shipped immediately in a fresh condition.

NOTE DELIVERY MONTHS: Different species ripen at different times and it is best to ship them well ripened rather than to plant green bulbs. This may require purchasers in the North to cover their beds to prevent freezing, on the real late kinds. Lilies root even when the ground is frozen.

LARGE FLOWERING BULB OFFERED.
PRICES ARE FOR 1, 10 and 25 BULBS:

All Prices are prepaid.

AMABILE .50 5.25 10.50

Korean Lily. Turk's Cap shaped; grenadine-red, spotted black. It is of easiest culture and a fine rockery Lily. Sun or partial shade; cover 4"; 3 ft; late June; delivery October.

AMABILE LUTEUM. .70 6.50 13.00

A lovely yellow form of the above that is not commonly grown in our gardens; it is excellent.

AURATUM (Type) 1.40 11.00 22.00

Gold Banded Lily. The most beautiful of all Lilies. Large bowl-shaped blooms, waxy white, spotted crimson, each segment striped with a gold band and when established, as many as 30 large showy blooms will be had on each plant. Ample humus, sun or partial shade in the South; easy culture; cover 5"; 15" apart; grows 4-5 ft; August; delivery November.

AURUM ESPERANZA. 1.50 12.00 24.00

A fine selection of this species. The flowers are of huge size, and the plant extremely hardy; a group in bloom in the garden is a picture difficult to describe. Do not plant deeper than 5 inches;

AURATUM PLATYPHYLLUM.

1.00 10.00 19.00

A more massive and robust form and even hardier than the type. The flowers are huge and measure up to 12" across. It does better in partial shade.

AURATUM PICTUM. 2.50 25.00 50.00

The blooms are large and open, white and heavily spotted with crimson, with tips of the petals flushed pink to crimson.

AURATUM TRICOLOR 3.00

Similar to *A. platypodium* but without

the crimson spots. It has the gold band and yellow spots; very pretty.

AURELIAN HYBRIDS. 3.00

A beautiful group of Lilies, varying in form and color, from white, shaped like *Henryi* to trumpets of deep yellow and apricot, with all the intermediate shades and colors, with some shaped almost like the *Auratum*; cover 6"; 6 feet; August; delivery in November.

AUR'N 'MEI LING'. 4.00

A beautiful semi-curved form, with lovely cream flowers, gold centers; 4½ ft; August; delivery in November.

AURELIAN GOLD TRUMPETS.

2.50 25.00 50.00

A grand strain of the originator's stock, all selected and tagged while in flower to assure uniformity. The large fragrant trumpets are light unspotted golden yellow low; in form somewhat like *L. Centifolium*. Cover 6"; 6 ft.; July-August; delivery in November.

BACHOUSE HYBRIDS. 3.00

A tall strong growing variety with as many as 30 blooms to the stalk; flowers recurved, ivory, flushed with gold and delicately spotted brownish purple. Cover bulbs 5"; 5 ft.; blooms late June; del. Oct.

BACKHOUSE SEEDL'S. .75 6.50 13.00

Large recurved flowers varying in color from orange-yellow to orange-red and spotted mahogany. They are of easy culture, disease resistant and very desirable. Cover 5"; 5 ft; late June; delivery October.

BELLINGHAM HYBRID SEEDLINGS.

.75 6.50 13.00

Here is a magnificent type of Lilies that are highly resistant to disease as well as long lived. They have an airy orchid-like effect with as many as 30 flowers on a stalk. Be sure to plant them in partial shade, plenty of humus and good drainage. Large recurved orange-yellow to orange-red, spotted mahogany. 6 ft. tall; June to July; delivery in October.

BOLANDERI. 1.40 10.00 20.00

Thimble Lily. A pretty bell-shape small flower in early July; wine-red with darker spots; 3 ft; cover 4"; 10" apart; del. Oct.

BRENDA WATTS. .60 7.00 13.00

A pretty large recurved fire red dotted deep purple. This is a beautiful variety for any garden; cover bulb 6"; sun or partial shade; 5 ft.; July; delivery in October.

CANADENSE FLAVUM. .40 4.50 9.50

Canada Lily. One of the best of the American Lilies; its nodding bell-shaped flowers are in a pleasing shade of golden yellow, with mahogany spots. Flowers in early July; 5 ft.; cover 4" and plant 10 in. apart; delivery in October.

JAPONICUM. 1.00 10.00 20.60

The most beautiful pink Lily, exquisite

6-inch trumpet-shaped flowers and bearing 2-5 flowers in rose-pink to light pink. It is not easy and should be grown in partial shade and protected from strong winds; plenty of humus in the soil and as it is stem-rooting do not dig or hoe around it; 2-4 ft.; late June; cover 4"; delivery Oct.

CANSE RUBRUM. .80 7.00 15.00

Red Canada Lily. This is a delightful variety; a red form of the above with yellow throat and a few mahogany spots. Both *Canadense* forms make a showy display in a group planting of 10 or 25 bulbs. Same culture.

CERNUUM. .75 7.00 13.00

Nodding Lily. A very attractive little lily similar to *Tenuifolium* in form. The flowers are nodding, reflexed, 2-6 on slender stems, in mid-July; rosy lilac, spotted wine-purple. It is delightfully fragrant too; ideal for the rockery; sun or partial shade; cover 3 inches, 8" apart; 5 ft.; delivery in October.

CROW'S HYBRIDS. .90 9.00 17.00

These are magnificent trumpet hybrids, a cross between *Sulphureum* and *princeps*. They are huge cream to white flowers with golden yellow throat, shaded deep purple externally and blooming right after the *Regales*; cover 6"; 5-6 ft.; late July; Nov.

DALHANSONII HYB. .300

A gorgeous hybrid of oxblood-red shading to tangerine-orange at the base. The blooms are thick petalled, recurved and similar to *Hansoni*, one of its parents. As many as 30 blooms per stem; cover 5"; 4-5 ft.; June; partial shade; delivery Nov.

DAURICUM. .60 5.00 10.00

A very nice dwarf lily; with erect flowers varying from light orange-yellow to deep orange-red, spotted deep red. Excellent for a low growing group; cover 4"; 1-2 ft.; June; delivery October.

DAURICUM WILSONII. .60 6.00 12.00

This is a deep apricot, spotted mahogany; erect flowers; it is a late bloomer and will lengthen the Lily season when other flowers are scarce; cover 4" late August; delivery in October.

DAVIDII. .40 4.50 9.00

The flowers are smaller and more refined than *Tigrinum*, recurved, brilliant orange-red, spotted mahogany. It grows to 6 feet and flowers in July; cover bulbs 5"; 1 ft. apart; delivery October.

EDMUND L. KAGY. 4.00

An erect 5 ft. beauty with 6 inch erect blooms with recurved tips in persimmon-orange, lightly spotted and flaked oxblood-red. A stunning lily for August flowers; cover bulbs 6"; 6 ft; delivery Nov.

EDNA KEAN. 1.00 9.00 17.00

Similar to Brenda Watts but in a deep brick red or cherry-red, spotted black, an unusual lily color. Easy to grow, either in full sun or partial shade; 4 ft.; June-July; cover 6"; delivery October.

(Continued on inside Back Cover)

HARRY E. SAIER, DIMONDALE, MICHIGAN.

Calonyction Tuba - as Grown in Florida

A rambling vine growing to twenty or thirty feet each season. Twining and rambling on fences the vine is of pencil size. The flower is purple. It thrives in sandy soils and in full sun.

Growing from tuba, the vine throws alternate leaves of two distinct shapes, the first being true heart-shaped which persists from vine tip all thru the growing period. Following this primary heart-shaped leaf, is the true character leaf, being distinctly three lobed, deeply veined and rough surface.

Flowers in August

The flower shoots out from the vine on a small green stem at the leaf axels and terminates into the bud which eventually assumes the size and shape of an acorn, of a rich green color.

In August (Fla) and September the blossoms burst out in all their glory in the form of a beautiful and graceful trumpet about three and one half inches long and the flaring bell about three inches wide. The base of the trumpet is of a rich wine purple color which gradually fades in the flowering bell to a delicate light pink tint. The deeper colored veins emerging from the throat spread over the bell in an attempt to separate the blossom into five separate petals. The edge of the blossom is twisted, curled and fluted and the texture is as of very fine delicate silk.

One of the most cooperative blossoms, it

PAUL A. GIROUARD, Florida.

gives advance notice of its performance. The bud unfolds a tightly curled pink form shaped like a cigar and from two to three inches long, retaining this form from twelve to twenty-four hours before opening about five or six o'clock in the evening and perfuming the air with a faint exquisite scent.

The Flower Shape

The blossom remains open well after midnight, hence its name which in Greek means, Night Beauty, but next morning the blossom bell is folded inward as a tightly closed fist, hanging from the bud by a slender thread.

The tuba is shaped somewhat like a turnip with a deep tap root and varies in size from one inch in diameter to four or five inches. Roughly, the tuba adds to its diameter about one inch each year. In Florida they are left in place from year to year but in colder sections it is best to remove and protect them in winter. Six year old tubers waiting to be transplanted are laying on top of the ground in the sun and rain and thirty degrees cold, uninjured. They are six inches in diameter.

The seed pod is of a brown chestnut color, size and shape of an acorn and holds four jet black seeds, each well imbedded in silk floss.

Each seed produces a small vine about 12 inches long with small two-lobed leaves resembling dutchman's breeches, up-side-down.

The resulting first year tube is about two inches long and of pencil diameter and snow white in color. These are left undisturbed for two years and then given more room in transplanting.

Anyone wishing to enjoy this beautiful flower must first be assured that they must earn that pleasure for the leaves are devoured by very small caterpillars, appearing in very large numbers in the summer and if these are neglected for two days they will grow rapidly in size and defoliate the entire vine. We go about every morning with a gallon can, its bottom covered with kerosene and gather these small caterpillars when they are very small, they are easily seen for they feed on the green leaves and the resulting leaf is like fine lace; we pinch this leaf off and the kerosene in the bottom of the can does the rest.

When full grown, these caterpillars are about an inch long, are yellow in color, with a black band along the back.

Care Required in Growing

I have seen this vine (an escape) in fields and in woods in Florida but seldom if ever a blossom due to the voracious appetite of these caterpillars.

The blossom is so exceptional, so sweet and of so great beauty that I gladly collect its enemies daily and enjoy the flowers. By some it is called *Ipomoea setosa*, to which it is related but differs in slight botanical characteristics.

Cultivation of South African Proteaceae

By H. F. WERNER, South Africa

The following interesting article appeared in the Journal of the Botanical Society of South Africa and it will give some interesting and valuable information on these plants of which there is little information given in North American publications.

Leucospermum

In dealing with the ornamental value of the Proteaceae as garden plants we must give pride of place to the genus Leucospermum, (Pincushions). Two beautiful species are *L. bolusii*, (5 ft, widely spreading) and *L. nutans* (5 ft, widely spreading); their lowest branches sweep the ground and the plants are symmetrical mounds of flower heads about mid-winter until the summer. The flower heads yellow, golden or reddish in the former species, and reddish in the latter are circular and consist of a close cushion of recurring or rolled florets with protruding styles giving the typical pincushion effect.

The above colors are the predominant ones in the genus, but there is a fairly wide range of variation according to species. Among other showy species with flower heads resembling more or less the above species are *L. attenuatum* (5 ft.), *L. catherinae* (4 ft.), *L. grandiflorum* (5-6 ft. erect), *L. incisum* (5 ft.), *L. lineare* (4 ft. with needle-like leaves), *L. praemorsum* (6 ft. erect).

In a class of its own is the magnificent *L. reflexum* (10-12 ft.) with silvery grey leaves and large orange-scarlet heads which have the further unique features in the changing of position of the styles as they age. This species makes a fine upright, well-branched bush, with great numbers of heads open at one time; they are borne on long straight

stems, appearing early in winter and continuing into the summer.

Another gem is the comparatively dwarf *L. tottum* (3-4 ft.) with masses of pinkish buff heads on symmetrical bushes, branched to the ground level. Somewhat later blooming than most others.

Species with smallish heads include *L. alatum* (4 ft.) with numerous heads in clusters, opening white and turning to pale pink, scented; *L. crinitum* (4 ft.) and *L. muirii* (4-5 ft.).

Of prostrate species *L. prostratum* is superb for draping low walls; it bears numerous small golden flower heads, later becoming crimson, also scented. Also useful in this class is *L. stenatum*.

The Leucospermums, as cut flowers, have exceptional lasting qualities, packing and travelling in perfect condition. The flowering season of the genus extends from winter until well into the summer months.

Protea

The genus *Protea* is characterized by the conspicuous involucle of scales (usually very colorful and often adorned by means of a beard at the tips) which surround the head of the flowers. The predominant color range in this genus is pink, with occasional albinos; other colors are reds and, more rarely, greens.

As a 'national emblem' of South Africa, the *Protea* is, perhaps, too well known to require a detailed description; and space only permits mention of some of the most noteworthy species in this large and diverse genus.

Outstanding is *P. cynaroides* (giant or King *Protea*) with immense hemispherical heads, often nearly 1 foot across, which vary from silvery pink to deep rose or

Continued on Page 340

In recent years it has been demonstrated that the successful cultivation of this family in various parts of South Africa, outside their respective natural habitats, makes them no longer such 'difficult' plants as has hitherto been the popular notion. Likewise in Australia, New Zealand, parts of the United States, such as California, as well as countries with comparable conditions, success has been achieved.

The National Botanic Gardens of South Africa, have been largely instrumental, in dissemination of seeds and information, in bringing into cultivation these beautiful and unique plants.

The information supplied in this article is based on the investigations and practical results over a number of years of work by these gardens in propagational and cultural methods. Slight adjustments in methods to suit any particular local conditions elsewhere could easily be made.

New Japanese Morning Glories

The war has shut off the supply of the beautiful Imperial Japanese Morning Glories so that we have not been able to offer them but we are just in receipt of word that the following have been dispatched via air mail and they will be on hand early in May.

This will be too late for listing them for most of our customers so we will give them here, hoping it will reach a good number in time for planting.

Here in Michigan, they should be in the ground by the first of June but farther south they could be planted as late as July and in the far South even later.

The seed is in named varieties and not

1. HEIAN NO HOKORI, deep carmine-red with white edge.
2. HEIAN NO KASUMI, cherry-rose with white edge.
3. HEIAN NO YUME, purplish rose with snow flake, white.
4. HEIAN NO YOROKOBI, deep red with white edge.
5. HEIAN NO SAKAE, brown with white edge.
6. SHINSEKAI, deep purplish red with white edge.
7. FUJI, deep carmine red.
8. TAMA FUYO, light purple.
9. FUKU MUSUME, purple rose with a white edge.
10. RYUKAN, brilliant red with white edge.
11. OKINA NO WARAI, deep brown color.
12. MATSUKAZE, purple with snow flakes.
13. EN NEN NO MAI, silvery gray with white.
14. KAGETSU, deep rose, self.
15. KISO NO TSUKH, deep reddish brown with white.
15. KISO NO TSUKI, deep reddish brown, brushed stripes.
17. TESHIN, pure white.
18. YOIMACHI, purple blue with white.

More Flowers to You

The object of the magazine is to spread the growing of flowers and when we receive letters indicating that this is actually being accomplished, it certainly encourages us.

Mrs. E. J. Reish of Raymond, Ill., in sending in her order for seeds and her subscription for the next year, writes: "First I wish to tell you how very practical and useable your magazine and seed lists are. From them I have learned how to handle perennial seed as well as house plants and as a result I have my first Iris and Peony, (hand pollinated) seedlings coming up. I also am keeping over Cyclamens for gifts and tender Azaleas, so please extend my subscription."

Mrs. Reish has good prospects ahead, when she has accomplished the difficulties in growing such plants as Azaleas, Cyclamen, and Peonies for these are not easy subjects, so we want to concede part of her results to her ability and we are happy to know that our magazine was helpful.

If it was our purpose to get rich in publishing the magazine we would fill it up with outside advertising but not wishing this the material must accumulate till there is enough for an issue, so please make it yours and pass along your experiences that others may be helped and the growing of flowers spread.

the common hybrid seed usually offered. All are wonderful; large flowers up to six inches across and in some varieties, even larger.

All Ipomoeas do best on the dry side and in soils not too rich. Do not plant them in a rich moist soil and do not water them too freely; they want to be in full sunshine.

All packets are packed in their original Japanese packets and are 25¢ each or 6 for \$1.00, any selection you wish; if you wish a packet of each of the 40 varieties, a special price of \$8.00 will be made.

You may order by the number, if you wish.

Each packet contains five seeds.

19. HOW DEN, deep brown with edge. edge.
20. SUIKO NO HIKARI, deep red with white.
21. SEIRAN, deep blue with snow flaked.
22. DAI NICHIRIN, deep carmine red.
23. YASHIRO NO AKI, deep brown with white.
24. AKATSUKI NO KEISEI, deep red with white.
25. FURUSATO, deep red, striped rose and with white edge.
26. EIKAN, deep carmine with white.
27. BENI JISHI, brilliant red.
28. YUKI, brown with white.
29. CHIYO NO AI, deep blue, plain.
30. CHIYO NO TSUYU, light blue.
31. OTOME NO MAL, light rose with white.
32. CHIYO NO YUKI, pure white.
33. SHUGETSU, light brown.
34. ARIAKE, light purple with white.
35. CHIYO NO OKINA, purple-red with white.
36. MATSU NO MIDORI, light blue with white.
37. HANAGASA, light red striped white.
38. MIYUKI ZAKURA, rose with white.
39. HINOMARU, white with red bottom.
40. HATSU ARASHI, purple blue, plain.

SEEDS WANTED

We have requests for seed of the following of which we have no source at the moment and therefore trust some of our readers may know of a supply.

Antirrhinum coulteriana and orontium.

Cosmos diversifolius.

Eschscholzia caespitosa.

Eschscholzia tenuifolia.

Mirabilis species other than jalapa, longiflora and uniflora.

Petunia axillaris and violacea.

(Frederick Weigle, Mass.)

Zelkova carpinifolia, (Planera crenata or P. Richardii). Hogan, Calif.

Calathea insignis, native of Brazil.

We would also like the addresses of any collectors in Brazil, that any of our readers can give us.

Seed of any of the species of Tabebuia, especially T. serratifolia, (also listed as Bignonia and Tecoma).

A reader from Pennsylvania is in search of:

New Guinea Butter Vine or New Guinea Butter Squash.

The plant is a squash, and producing fruit about 4" in diameter and from 3-5 feet long.

Any of our readers knowing of this can drop us a postal.

BAILEYA

A new quarterly journal issued by the staff of the Bailey Hortorium, Ithaca, N. Y. Its "purpose is to translate the results of taxonomic research to a form useful to the plantsman and to the amateur and the professional, alike."

It will also account for plants recently introduced to North American horticulture and information on them.

Its name honors Dr. Liberty Hyde Bailey, who celebrated his 95th birthday last March.

The subscription price is \$2.00 per year, which can be mailed to Dr. George Lawrence, at the Bailey Hortorium at Ithaca, New York.

ROSE-PETAL MARMALADE

The following is taken from a recent bulletin of the Missouri Botanical Garden.

Rose-petal marmalade is a common delicacy in the Near East. Take blooms of old-fashioned heavy scented varieties. Pull off an entire rose and with the other hand snip with a pair of scissors all the whitish tough bases of the petals. Buy crystals of citric acid at the drug store. Working with a small basin of petals, rub the petals and the crystals back and forth quickly between the palms of the hands. Add water and boil up quickly. Flavor with sugar and use enough Certo to make the mixture jell. If the resulting juice is too tough, the petals need to be rubbed longer and bruised more extensively. One should use enough citric acid to make it almost as tart as crab-apple jelly.

The attractive rose-red color sometimes fades near the surface but the flavor is not affected.

BOOK REVIEW

PLANT BREEDING FOR EVERYONE

A new book will be published sometime this year entitled "Plant Breeding for Everyone". It is written by a former associate of Luther Burbank.

It is a very readable book, giving directions for crossing plants, what to do to breed for certain characteristics. Then how to patent plants after you have grown and tested them and feel that you have a good new variety. Hints on marketing such new varieties are also mentioned.

Gertrude H. Ascher, Calif.

ALPINES WITHOUT A GARDEN

A new book, coming shortly (probably early summer) is Alpines Without a Garden by Lawrence D. Hills, 16 pp. plates (one in color). Lge. Cr. 8vo, cloth. London.

This is by the author of PROPAGATION OF ALPINES. Part of the author's other book MINIATURE ALPINE GARDENING, now out of print, has gone to form this much enlarged and revised book on indoor and outdoor rock gardens, from pocket handkerchief size upwards. Probable price \$3.00.

ROCK GARDEN and ALPINE PLANTS

We have added this instructive book by the late Henry Coorev. It's 544 pages contain a wealth of information on the making of Rock Gardens and on the many plants suitable for growing in them.

It contains, in addition, valuable suggestions on the handling of the seed bed; chapters on the hardy fernery, terrestrial Orchids and hardy Cacti are included.

It is a valuable all-round book, not only for Rock Gardeners but all others. \$3.50.



RECOMMENDED GARDEN BOOKS

Send All Orders for Books to:
HARRY E. SAIER
 Dimondale, Michigan.

LILIES IN THEIR HOMES. \$3.50

By Alice C. Maxwell. Mrs. Maxwell first takes in turn the various areas of the world where lilies are to be found, treating in detail the native lilies of each region. The second part of her book deals with the practical aspect of lily growing, methods of propagation, hybridizing and diseases. A list is given describing over 150 lilies, species and varieties now in cultivation and the main strains of hybrids. Pages of photographs, also line drawings.

DAFFODILS FOR AMATEURS. \$1.50

By M. J. Jefferson-Brown. Cr. 8vo, 4 pp. plates, 96 pgs. This book is especially written for amateurs in Daffodil growing and describes the cultivation with advice on all those varieties which should give good results in the majority of gardens and which present no cultural difficulties.

THE PROPAGATION OF PLANTS \$3.50

By E. J. King. 8vo., illus. How to propagate every familiar garden plant and also many that are rare and unusual. The directions given should enable the amateur to be successful even with species supposed to be difficult. Professional propagators and nurserymen will also find the working direction they require. Paragraphs in the text are numbered to make cross references easy and there is also a full index. 3rd. edition.

VIOLETS for GARDEN and MARKET \$2.25

79 pp., 13 pp. plates (5 in color) 8vo, cloth. (1950) New, in dust wrapper.

A delightful little book covering the culture of Violets. Mrs. Zambra writes as an expert as she and her husband have grown Violets commercially for many years. The last chapter is of interest to those looking for old fashioned recipes. She tells how to make Violet syrup, honey of Violets, conserve of Violets and many other recipes.

ROSES IN COLOR & CULTIVATION. \$5.00

T. C. Mansfield. 261 pp. of text, 80 color plates. 37 figures. Cr. 8vo, cloth, (1947) London, New, in dust wrappers.

This book lists most of the roses now in cultivation (to 1947). Many are pictured in color. There are cultural notes, and long lists and descriptions of the varieties.

CACTUS GROWING FOR BEGINNERS.

V. Higgins and H. T. Marrable. 84 pp. 12 pp. plates, 12mo, boards. London (1947) New. \$1.00

Clear concise directions for raising cacti indoors in pots for beginners.

A.B.C. of ROCK GARDEN and POOL \$1.50

Shewell-Cooper. 204 pp. illus. London 1949. Quite comprehensive for its size, this book lists many plants usable for rock gardens and for pools. Gives cultural hints and tells you how to construct rock gardens and pools.

PROPAGATION of HARDY TREES and SHRUBS. \$1.75

G. M. Taylor. 107 pp. 8 pp plates, Oxford, 1947.

A book designed to meet the needs of the amateur. Tells how to make cuttings, layers, grafting, etc. What shrubs and trees can be propagated from seed and how best to treat the seed in order to obtain the best results

AUSTRALIAN WILD FLOWERS 75¢

National Handbook 9; 32 pp. 23 illus. (16 in full color). Melbourne, 1944. Gives notes on garden cultivation and identification lists of 106 wild flowers.

POPULAR ORCHID GROWING. \$1.75

This is of special interest to the amateur Orchid grower and covers the growing of these flowers completely. A more complete description will be given in the next book listing.

PLANTS OF HAWAII NATIONAL PARK

By Otto Degener, Naturalist of Hawaii. A book of human interest emphasizing the culture of the ancient Hawaiians. As many of the plants growing in Hawaii grow likewise in other islands of the Pacific and as many of the ancient Hawaiian customs are like the customs of present inhabitants of other Pacific Islands, this book is actually illustrative of plants and customs of the South Seas. 333 pgs. profusely illustrated with 101 full-page plates and 39 figs; paper cover. \$2.50

NATURALIST'S SOUTH PACIFIC EXPEDITION. Otto Degener.

A narrative based on the writer's stay of eight months in the Fiji Islands as a member of the Anna Archbold "Cheng Ho" Expedition, illustrated with photographs.

THE GARDEN OF PLEASANT FLOWERS.

E. G. Wheelwright. 190 pp., 7 pp. plates, 12mo, cloth. London (1948). \$1.75

Mrs. Wheelwright takes us through the English garden at its best. A charmingly written book, with intimate accounts of the plants in the garden. Very good garden advice, especially on unusual plants.

AZALEAS and CAMELLIAS \$1.75

H. H. Hume. 86 pp., of text, colored frontisp., 6 pp. plates. 12 mo. cloth. New York, 1946.

This is an older book by Mr. Hume, who has now written separate books on Azaleas and Camellias. However, for those who do not wish to specialize, but who are looking for general cultural information, this little volume can be of great value.

CORSAGE CRAFT. \$3.50

G. Reusch and M. Noble. 148 pp. profusely illus. 8vo, cloth. New York, 1951.

For those who wish to learn the fundamentals of corsage making, this book is ideal. Complete pictured instructions are given, plus many pictures of completed corsages to give one inspiration in designing corsages of one's own.

HORTICULTURAL COLOR CHART. \$10.00

This is the Horticultural Color Chart published jointly by the Royal Horticultural Council. The individual charts in two cloth cases. (2 vols.)

A B. C. of the GREENHOUSE \$1.50

Shewell-Cooper, 320 pp., 4 col. plates 9 gravure plates; 27 line illus; 12 mo; cloth London, 1949.

SEED and POTTING COMPOSTS. \$1.75

By Lawrence and Newell. Rev. 4th edition, 160 pp., 30 figs. 122mo., cloth. London, 1950. New in dust wrappers.

The authors are the developers of the standardized John Innes composts. Their book shows how those remarkable composts save time, reduce the hazards of raising difficult plants from seed and simplify proper potting on the seedlings or cuttings to maturity. Complete formulas and methods of preparation are given.

ROYAL HORTICULTURAL SOCIETY'S YEAR BOOKS.

We can supply copies of the RHODODENDRON YEAR-BOOK; the DAFFODIL and TULIP YEAR-BOOK and the LILY YEAR-BOOK. (1951-52) Each \$2.40

It will take about six weeks for delivery.

THE GARDEN FRAME. \$1.50

184 pp. 8 pp plates, 38 figs in text, London (1947).

How to start plants in the frame, wintering over, and all those problems connected with protecting plants and getting them started while the weather is still chilly.

THE CACTUS GROWERS GUIDE. \$1.75

The knowledge and advice which Mrs. Higgins gives in this volume, is backed by 20 years experience in Cactus growing. Besides complete cultural notes, Mrs. Higgins gives a clear account of the relationship between various kinds of Cacti and Succulents and explains in simple language how these plants are classified.

A Compost Activator

The writer has not used the various commercial activators on the market, to any great extent but what use has been made, I have not seen much results. I may be at fault in this for we use mulches in all our plantings and it seems to be the easiest and best method for our particular operation.

However, in one of the foreign journals there appeared a formula, that at first, seemed to be one of the old witch medicines but as it has had some good testimonials lately we are going to give the formula as published. Probably some our readers with an urge to investigate, will try it out and make a report on his results. It is easily made.

The ingredients are: Matricaria chamomilla, dandelion, Valeriana officinalis, Yarrow, stinging nettle, oak bark and honey. All of these are easily secured.

All the herbs are dried and then powdered. It is not necessary to haulle them as if you were making dry herbs for the table.

The honey, one drop, is rubbed into one dram (1/8 of an ounce) of sugar of milk and then mixed with one teaspoonful of each of the above herbs. It is not clear whether the herbs can be mixed first in equal parts but if so, then 6 teaspoonsful be used. Put about one grain (this would be a very small pinch) of this mixture into one pint of rain water and then let stand for 24 hours when it can be poured into holes made in the compost heap.

They say it really works!



NEW GERMAN PRIMULA OBCONICA

CULTURE OF POGON IRIS

(Oncocycloides, Regelia and Regeliocycloides)

These directions pertain especially to such varieties as Heremoine, Hebe, hoogiana, korolkowi, Luna, susiana, etc.

Leave the bulb in the dry packing material and store in a cool place until October 1st or later. Plant in a sunny, well drained location using a liberal amount of lime and bonemeal. Cover only three-fourths inches with soil and in cold climates, mulch with 2 inches of some light material. Uncover in the spring and after blooming, do not water, and let rest. Unless your summers are very dry, dig and store bulbs until fall or cover the bulb planting with glass to keep off all moisture.

SUBSCRIPTION PRICE \$2.00 12 ISSUES

The Cultivation of South African Proteaceae

Continued from Page 337

creamy white, according to the variety. The plants are usually 3-5 ft. high (taller in semi-shaded situations) and throw new stems from the base of the plant. Flowering time is variable.

Also outstanding is *P. barbiger* (big woolly Protea), bushes usually about 5 ft. high, with somewhat glaucous leaves. The heads are remarkable for the wooliness of the white-bearded tips of the involucle scales and center of the head. Colors are to be had in shades of pink, sometimes pale sulphur-pink, as well as white, in bloom from late winter into spring. Other showy bearded species are: *P. lepidocarpodendron* (6-8 ft.), *P. marginata* (12 ft.), *P. nerifolia*, (8-10 ft.), *P. stokoei* (4 ft.), *P. speciosa* (2 ft.). With somewhat less beard are: *P. grandiceps* (4-5 ft.) and *P. pulchella* (3-5 ft., spreading).

Among beautiful species with beardless scales we can include *P. compacta* (8-10 ft., heads borne on long stems, ideal for cutting), *P. mellifera* (Sugar Bush) (6-10 ft.), *P. obtusifolia* (10 ft.). In one or two in this section, such as *P. latifolia* (8-10 ft.) and *P. longifolia* (5 ft.) the 'centre' is very attractive.

A further section could comprise those species wherein the attraction lies chiefly in the well-exposed styles, especially *P. grandiflora* (8-10 ft.) and *P. longiflora* (10 ft., flower head with an involucre which lies wide open, almost water-lily-like). *P. lacticolor* (12-15 ft.) with small heads is also very charming.

Among comparatively dwarf species, mention should be made of *P. rosea* (Mountain Rose) (3 ft.) with needle-like leaves and pendulous heads in wine-red or green, *P. pityphylla* (1-2 ft.), *P. minor* (1-2 ft.) and *P. cedromontana* (3 ft.).

While the flowering season of the greater number in the genus may be regarded as winter and spring, there is no lack of species to complete the cycle of the year.

Leucadendron

In the genus Leucadendron the best known is probably *L. argenteum* (Silver Tree) about 30 ft. in height, with its silvery-grey leaves. Other species fall into the shrub class, with a number of decorative species. Their beauty lies chiefly in the upper leaves surrounding each head becoming enlarged at flowering time and adopting bright coloration, notably shades of yellow, often assuming beautiful tints in some species as the leaves age. The genus, it should be noted, is dioecious and in some cases the male, and in other cases the female plants, provide the greater attractiveness, either in foliage or inflorescence, or both, as the case may be. Most species are at their best during winter and spring.

Some of the most showy species, besides *L. argenteum*, are: *L. adscendens* (variable), *L. aemulum* (5-6 ft.), *L. decorum* (6-8 ft.), *L. sericocephalum* (6 ft.), *L. venosum* (4 ft.).

Aulax

Allied to Leucadendron is the genus *Aulax* (the only other in the South African Proteaceae in which the species are dioecious). The male plants have the flowers in small racemes, giving the inflorescence a feathery appearance, while the female plants have the flowers in the form of involucrate heads. The species represented are: *A. cneorifolia* (7 ft.), *A. pallasia* (8-10 ft.), *A. pinifolia* (8 ft.). All have very narrow leaves.

Mimetes

A genus of merit is *Mimetes*. Unfortunately one or two beautiful species are somewhat rare in the wild and seldom found in cultivation. One or two may be on the verge of extinction. In this genus the heads are borne in the axils of the upper leaves which are sometimes colored bright pink when the flowers appear as, for example, in *M. hyrigera* (3-4 ft.) and *M. hartogii* (6-9 ft.), which are very colorful from late winter into the summer. *M. hirta* (5-6 ft.) has green, hairy leaves; other species have silver, hairy leaves.

Orothamnus

A monotypic genus is *Orothamnus*, which provides us with the rare *Orothamnus zeyheri* (Marsh Rose) (5-6 ft.) with its remarkable drooping flower heads in which the fleshy scales are a brilliant, translucent red. The plants are erect, with few stems, bare below, and the heads are borne terminally. This rare species has been successfully raised and flowered at Kirstenbosch from seeds obtained from the wild. Further research into the behavior of this plant in cultivation will yield valuable data for its preservation from extinction.

Serruria

The genus *Serruria* provides among its numerous species at least one of outstanding beauty, namely *S. florida* (Blushing Bride) (3-5 ft.) whose delicate pink heads are borne on slender branches with divided leaves; the plants are only sparsely branched, and are sometimes comparatively short lived owing to their profuse and lengthy flowering habit, from early winter until the beginning of summer. On the verge of extinction in the wild on more than one occasion in recent times, it was first flowered at Kirstenbosch in 1917, and has since been very successfully cultivated. For cut flowers and bouquet work this plant is superb. *S. rosea* is very similar. Other useful, albeit less showy, species are: *S. aemula* (5 ft.) and the neat, well-branched bushes of *S. artemisaeifolia* (3-4 ft.).

Paranomus

The genus *Paranomus* deserves to be grown much more widely, especially *P. reflexa* (5 ft.), a well-branched symmetric bush bearing masses of fairly large yellowish green pincushion-like heads during the winter. This plant is also interesting in that, though dimorphism, the lower leaves on the branches are divided while the upper ones are entire. *P. crithmifolia* (4 ft.) is attractive with its pinkish grey inflorescences in spikes.

Brabeium

The genus *Brabeium* is represented by only one species, namely *B. stellatifolium* (Wild Almond) (15-20 ft.) It was used by Van Riebeeck for planting a hedge in 1660, portion of the original planting is still preserved at Kirstenbosch. The inflorescences of this plant are dense spike-like racemes borne in the axils of the leaves, followed later by velvety brown fruits. The leaves are arranged in whorls, unlike any other member of the Proteaceae.

Propagation and Cultivation

The most practical method of propagation is by seeds. Sowing of seed at the National Botanic Gardens is done with the advent of the autumn and winter rains, about April. It has been found by general experience and investigation in this matter that the seeds are no doubt encouraged to germinate by the even, moist conditions, and that the

seedlings likewise are benefited by the generally cooler conditions, prevailing at that time of the year. Damping-off caused by high humidity or excessive wetness in the soil should therefore be one of the factors to be guarded against.

Another factor is the question of sound seed. In some *Protea* spp. and others, the percentage of fertile seeds is very low indeed. In the case of the majority of *Protea* spp. the flower-heads require a year at least in which to ripen their seeds, and the heads remain intact on the plants for a few years. Upon collecting and drying these older heads, the seeds are liberated. *Leucospermum* spp., *Serruria* spp. and *Paranomus* spp. ripen their seeds soon after the heads are over. *Leucadendron* spp. vary up to twelve months, according to species, the Silver Tree taking longer.

The low percentage of fertile seeds in the case of certain *Protea* spp. has been mentioned. This is further complicated by the fact that the seeds are, in many cases, very hairy, rendering the task of picking out the plump, fertile seeds somewhat difficult, unless the hairs are more or less rubbed off first.

Seed Sowing

Various methods of seed sowing have been tested at Kirstenbosch over the years, and the best all-round results have invariably been obtained by sowing the seeds in nursery beds (fairly light soil, with which is incorporated some compost or leaf-mould). These beds should be in the open and not shaded in any way.

The easiest method of sowing is by forming drills across the beds at, say, 6-9 inch intervals, the depth depending on the size of the seeds, an average depth being about 3/4-1 inch. The drills can be easily be made by pressing a strip of wood into the bed to the requisite depth. The seeds are spaced 1 inch apart in the drills, covered with a sandy mixture, firmed down, and the beds kept moist, the secret of success being the maintenance of an even degree of moisture. Should the degree of moisture fluctuate too greatly, germination can be seriously delayed, so much so that the seeds of *Leucospermum* spp. for instance, may remain dormant.

Apart from fluctuations in soil moisture which should be guarded against, it may also, perhaps, be necessary to give protection against disturbance of the beds by moles or depredations by mice or birds, as also protection against excessive rain, or other abnormal conditions.

Recent experimental work at Kirstenbosch in nursery-bed methods have shown that if these seed beds are prepared in garden frames (brick with the usual moveable lights) this is an ideal method. In this connection, if the frames are deep, it would be advisable for the beds to be raised somewhat to provide maximum light and air for the seedlings when they appear.

Thinning of Seedlings

Germination varies according to genera and species, being anything from three weeks and upwards, before the cotyledons show above ground. When the first true leaves are formed, the seedlings are ready for lifting, either for thinning into individual containers or planting out into permanent positions. It has been found that better results are usually obtained by 'growing on' the seedlings for their first season in tins, for

Continued on Page 341

**Saier's
GARDEN MAGAZINE
DIMONDALE, MICHIGAN.**

VOL. 3, NO. 5. (10) JULY, 1953.

We have had some letters regarding the change in the name of the business from Pioneer Seed Company to Harry E. Saier. We would have explained this a little more in the last issue if we had had that anyone would be interested. The main reason being the great number of Pioneer Seed Companies, our packet supplier tells us they have 28 Pioneer Seed Companies on their books. Another reason being due to the necessity of cutting down on one's operations during these difficult times.

Orders on file will be handled just as if there was no change in the name.

A word about the magazine. Only enough copies are printed to fill the needs for the regular subscribers, plus a few extras that are bound in with the seed list. Few sample copies are being mailed out so if you find the magazine section of value to you you should subscribe and then you will get each issue as well as the current seed list. We believe the seed list should also be of value for its cultural information as well as for the seed listings. These seed lists are printed often during the year; the type is kept set up and as soon as the printed copies are exhausted, the type is corrected as to the listings and then put back on the press and the amount needed for the next 60 days are run off. All subscribers get a copy of each seed list; all customers who have purchased since the list issue get a copy; all requests are sent a copy, but there is no general mailing except for the issue at the end of the year, when all customers during the proceeding 12 months are sent a copy of the magazine and seed list combined. Costs are too great to operate any other way.

When does your subscription expire? Above in the date line is the figure (10). On your address you will find a number in the upper right hand corner; if it is 10, then your subscription expires with this issue; if, say, it is 15, then you have 5 more copies due you.

If there are any clubs that would like sample copies for their members at any particular meeting, we will try to furnish them without charge, especially will this be so if there is an article in the issue of special interest to the group.

We are anxious to have pictures that will be of interest and if readers will mail copies or the negative, they will be returned promptly.

The front cover pictures are always a problem. We would particularly like to show American gardens, but we will have to get suitable pictures first. Do you have something along this line that you are proud of? If so, we will cooperate so others can also enjoy it.

VIGOR IN WHITE FLOWERED TYPES

White or albino varieties of flowers usually are harder than the colored varieties. White flowers also are more fragrant.

This fact can be especially taken advantage of in plant breeding where hardiness is especially wanted in the crosses.

SUBSCRIPTION PRICE \$2.00 12 ISSUES

The Cultivation of South African Proteaceae

Continued from Page 340
better control of watering and control of pests.

Manufactured galvanized iron tins (about 4-6 inches) which can be opened for removal of the plants with minimum disturbance at planting time, or 2 lb. jam tins, are suitable except for the Silver Tree, which is a robust grower and requires a larger tin.

The soil for tinning is any average light type of soil enriched with some compost or leaf-mould, also a little bonemeal. The tins should have the usual provision for drainage.

In tinning the seedlings, the cotyledons should be kept just above soil level. It is advisable also to sever the growing tips of the tap roots if this was not broken in lifting from the seed bed. In any case a slight reduction in length of the tap root if unduly long would not do any harm. The effect will be to encourage a fibrous root system, apart from actually facilitating transplanting. Watering should be carefully regulated, as excessive moisture at this stage might cause wholesale damping-off.

As the plantlets gradually increase in size, so watering can be increased accordingly. In mid-summer the intensity of the heat and rapid drying out of the tins can be minimized by placing the plants under a lath shelter (laths fairly widely spaced to prevent soft growth taking place in the plants).

In due course the young plants should have the growing tip removed (except with the Silver Tree) to encourage bushy growth. Species such as *Protea cynaroides* and *Mimulus luteus*, which branch naturally from the base, do not require this 'stopping'.

Towards the end of the summer the young plants are best stood right out in the open to harden their growth. Should they show signs of starvation in the tins, a little feeding could be resorted to. Any rooting through of the plants should be guarded against and emerging roots from the tins removed as they appear.

Planting Out

The young plants in tins are planted out as one-year-olds. In the Cape this coincides with the advent of the rainy season in autumn, but elsewhere regular watering would be required at that time to assist the newly set-out plants in becoming established.

Before attempting to remove the plants from their containers, they should receive a good watering. In removing from jam tins, squeezing the top of the tin and then giving the bottom rim a few sharp taps with the trowel, will facilitate removal of the plant ball intact.

The holes for receiving the plants should be prepared beforehand by removing a spade's depth of soil and breaking up the bottom layer in the hole, mixing in a little leaf-mould or compost, after which the top soil is returned and likewise enriched, plus a little bonemeal and/or a dusting of superphosphate. Planting must be firm.

The majority of the species of South African Proteaceae, being mountainside or koppie plants or otherwise growing in well-drained situations, experience has shown that the best results in cultivation of this class is a well-drained loam. Only in rare cases, one or two others, are marshy conditions desired. The great majority require full sun. Under cultivation pests and diseases are fortunately not unduly troublesome. Generally speaking the adaptability of the members of this family to various soils and con-

ditions is remarkable. Their flowering stage is also reached reasonably soon, according to species, after the sowing of the seeds.

'In Situ' Seed Sowing

For gardeners not able to carry out the seed-bed and tin method as described, it is possible to modify this method by planting the seedlings directly from seed beds into their permanent positions or, alternatively, sowing the seeds 'in situ' in prepared positions where the plants are to remain permanently. Three seeds should be sown in each spot and any resultant surplus could be transplanted, remembering that this must be done early on.

But while 'in situ' sowing may appear to be labor-saving, there is less control over the welfare of the seedlings. Likewise, sowing the seeds in pots or flats, has drawbacks; experience has shown that, excluding one or two species, this latter method gives unreliable results, as fluctuations in the degree of warmth and moisture precludes good results being obtained.

NOTE: One must keep in mind when reading this article that the writer is in the Southern Hemisphere and thus the seasons are reversed.

Seeds of the species mentioned will be in future seed lists.

**The New Insecticide
Du Pont's Malathon**

The American Cyanamid Company has just developed a new insecticide named MALATHION which takes the place of PARATHION with the small gardener. Parathion has a high degree of human toxicity requiring special handling precautions and is not practical for use in the home garden.

In addition to the ease and simplicity of handling, Malathon has shown an extremely high degree of insect control. For example, California reports that nearly 100% control and magazine for February and I think it is cellulaceous potted plants using a Malathon spray mixture; 100% control on soft scale on Orchids (*Phalaenopsis* and *Cattleya*); 100% control of Monterey pine scale and the same of two-spotted spider mite on Gardenias moderately infested. Aphids were also controlled at the same time.

Malathon insecticides applied to flowers and ornamentals will control such destructive insects as: aphids, thrips Japanese beetle adults, mites, mealy bugs, tarnished plant bug, scales, leafhoppers, four-lined leaf bug and many other insects found in the home garden.

Malathon is the basic material and it is available in many commercial garden insecticides; the labels will state if it contains Malathon.

BAD PYRMONT BATHS

I was interested in the article on Bad Pyrmont in the February issue.

I went once with my aunt to Nauheim. The Kur Hous had the most superb Rose garden I ever saw. It was a joy to sit there in the early evening and enjoy it.

I agree with you the Cures in this country are great bores. There is nothing for rest, pleasure or diversion.

Mrs. E. Hollingsworth Siter, East Hampton,

N. Y.

Do not transplant Endive as plants are very liable to bolt to seed.

SUBSCRIPTION PRICE \$2.00 12 ISSUES

MINNEOSOTA WILD FLOWERS

MINNESOTA NATIVE PLANTS

The following plants are delivered postpaid during the spring and again in the fall, when they are in condition for shipping.

The prices asked are very low and any one wanting these beautiful natives from the far North should order NOW.

AQUILEGIA CANADENSIS. The American Columbine. Good for the rockery or the border; sun or part shade.

ASARUM CANADENSIS. Wild Ginger. Good ground cover for shady places; if you need a quantity ask for special price.

ARISEMA TRIphyLLUM. Jack-in-the-Pulpit. A hard-to-find wood plant that should be in every wild garden.

CAULOPHYLLUM THALICTROIDES. Blue Cohosh. Deep blue berries in fall; 2 ft.

CLINTONIA BOREALIS. Bluebeads. Small lily-like bloom in spring; very dark blue berries in the fall; acid soil.

DODECATHEON MEDIA. Shooting Stars. White to rosy pink Cyclamen-like blossoms in the spring.

GERANIUM MACULATUM. Wild Geranium. Rosy pink blooms for the rockery or border; 1 foot high.

HEPATICA TRILoba. Round Lobed Hepatica. White to deep blue blossoms; acid.

IRIS VERSICOLOR. Blue Flag. For moist places; see Iris list for other species.

MIMULUS RINGENS. Monkey Flower. Blue Snapdragon-like blossoms with yellow centers; 2 feet high.

PARNASSIA PALUSTRIS. Grass Parnassus. White buttercup-like blossoms on slender stems.

POLYGONATUM BIFLORUM. Solomon's Seal. Drooping white bells, followed by nearly black berries.

SANGUINARIA CANADENSIS. Blood Root. White blossoms in early spring; showy leaves until late summer.

TRILLIUM CERNUM. Nodding Trillium. Drooping white blossoms.

UVULARIA PERfoliATA. Merrybells. Drooping yellow bells in the spring; easy to grow in the shade. It is good.

VIOLA BLANDA. Sweet White Violet. Fragrant small white Violet for naturalizing in the wild garden.

VIOLA RUGULOSA. Tall Stemmed White Violet. Blooms nearly all summer; ideal for your wild garden, too.

VIOLA CONSPERSA. Dog Violet. Pale blue flowers in early spring; for the wild garden for early flowers.

ATHYRIUM FILIX-FEMINA. Lady Fern. One of the easiest ferns for shady places in the border or wild garden.

RAY FLOWERS

Ray flowers are those that are made up of a multitude of small individual flowers as in the Sunflower. Each one of these little flowers forms a seed. Around this flower-head are the ray-flowers. These are always attractive and afford a sort of a landing field for the particular insect that usually does the pollinating work.

It might be well to mention for the benefit of the investigative gardener that there is a difference in these individual flowers, whether the seed comes from around the outside of the crown or at the middle; try this out on some of your ray-flowers.

DRYOPTERIS DILATATA. Mountain Fancy Fern. Beautiful evergreen fern; best in moist shady places in the border or in the wild garden or woods.

DRYOPTERIS LINNEANA. Oak Fern. A beautiful tiny six inch fern with branched fronds that should go well in any shady moist place where small ferns would do.

DRYOPTERIS PHEGOPTERIS. Narrow Beech Fern. Arrowhead-shaped fronds on 6-8 inch stems; another fine fern for moist shady places in the border or wild garden.

DRYOPTERIS THELYPLERIS. March Fern. Upright fronds to 18 inches; moist spots in either sun or shade.

PTERETIS NODULOSA. Ostrich Ferns. For sun or shade; a graceful fern growing to 5 feet; a sight in the woods or wild garden where the sun gets thru.

PRICES: On your selection of ANY 6 plants \$1.80; ANY 12 for only \$3.00; or you can select 35 plants any way you wish for only \$8.00; postpaid. Certainly a bargain. Remember these are all HARDY.

AMELANCHIER CANADENSIS. June Berry; a hardy shrub.

ARONIA MELANOCARPA. Black Chokeberry; wild life shrub for food and shelter.

CORNUS ALTERNIFOLIA. Pagoda Dogwood.

CORNUS STOLONIFERA. Red Osier Dogwood.

ILEX VERTICILLATA. Winterberry; a good shelter shrub for wild life.

DIRCA CANADENSIS. Leatherwood. A small plant 6-12 inches high.

SAMBUCUS PUBENS. Red Berried Elder. This is a good shrub for a game shelter as well as for food.

SYMPHORICARPUS RACEMOSUS NAN-
SUS. Dwarf Snowberry; a good shrub for difficult embankments.

VIBURNUM DENTATUM. Arrowwood.

VIBURNUM LENTAGO. Nanny Berry.

PRICES: ANY TWO PLANTS for \$1.00 or ANY 6 for only \$3.50; postpaid. If you wish any quantity for planting for bird shelter and food, write for special prices.

CYPRIPEDIUM ACAULE. Pink Moccasin Flower.

CYPRIPEDIUM PARVIFLORUM. Small Yellow Lady Slipper.

CYPRIPEDIUM SPECTABILE. Showy Lady Slipper.

CYPRIPEDIUM PRICES
ANY TWO for ONLY \$1.50; ANY six for only \$4.00. This price is very low for these very hard-to-find plants.

HELP WANTED!

Have just received my special seed list and magazine for February and I think it is wonderful and so complete.

Please send one to this friend of mine so she won't be forever borrowing mine.

Musa or Banana seed holds its germination for less than a year, so that orders for the seed should be placed and than patiently wait till it comes in when it will be dispatched immediately. The seed comes from the tropics and people in these regions do not rush out and gather seed just because someone orders a packet; we have to wait!

Iris for Special Places

This list could be added to and other species of Iris included. We try to grow ourselves as many of the species as we can and like to hear from any reader who also is interested in these.

For Shady Places:

- I. foetidissima. (also ornamental fruits).
- I. verna.
- I. fulva.
- I. albopurpurea.
- I. sibirica.

Greenhouse (Tender):

- I. hexagona. (Set out).
- I. japonica. (Pots or set out).

Wet or Watery Places:

- I. laevigata (Kaempferi).
- I. pseudacorus.

For pots, Ornamental Species:

- I. unguicularis.
- I. japonica.
- I. tectorum.
- I. pumila.
- I. Chamaeiris.
- I. Bakeriana.
- I. reticulata.
- I. persica.
- I. Tauri.
- I. alata.
- I. Xiphium.
- I. stenophylla.

Mr. Robert Henningsen of Portland just writes that he has the following species in his collection: bracteata, Bulleyana, Clarkei, cristata, Delavayi, foetidissima, Forrestii, fulva, gigantocerulea, Germanii, gracilipes, graminea, Hartwegii, Hoogiana, innoxinata, japonica, the wild Kaempferi, Korolkowi, laevigata, longipetala, macrosiphon, mellita, milesii, minuta, missouriensis, monneri, ochroleuca, ruthenica, orientalis, setosa, siberica, tectorum, tenax, tenuis, Thompsonii, unguicularis in 5 or 6 forms, verna, and versicolor as well as many hybrids and some species of which he has only one plant, and which has not bloomed for him. We have many of the above list and will try to list them soon. We are always pleased to exchange with other growers that we both can extend our collections.

COONS AND THE BIRDS

We have great many birds in our yard and the Robins and Cardinals are especially liked. On our back porch a Cardinal always roosts at night and builds their nest in the rambler rose, however I have never actually seen the little birds mature in the nest, they always disappear. At first I blamed the cat but last night I discovered the real trouble, COONS.

A coon came onto the porch and got a Starling and the Cardinal off their roosting place. At first I did nothing, thinking that some bird had fallen off his perch but upon hearing more noise, I took the flash light and just as I spotted the coon, he got the Starling and just at that moment the poor Cardinal fluttered against the other window and immediately the coon had it. I hurried for my shot gun but he was gone, the birds laying where he had killed them. I then waited for his return but he got the carcasses without my hearing him.

Hereafter when I hear a bird flutter against the window at night, I shall turn off the lights so that it will fly away and not be so easily caught. There is war declared on the coons around here with no armistice granted.

SUBSCRIPTION PRICE \$2.00 12 ISSUES

New Seed Arrivals

The following remarks are short items on seeds just received or soon to arrive.

Epiphyllum are now in full bloom in Brazil and we will have fresh seed in July and August; the packets will be 50¢ each. All the Epiphyllums grown there are hybrid forms, mostly unnamed and the seed will be in pure whites, reds, doubles and quadruples, etc. The seeds of some of these have dubious germination powers and in those cases we hope to offer leaf segments, the U. S. authorities, permitting. This Cactus is especially a nice greenhouse plant and for the house. Any Cactus fan should get some of this seed, fresh upon arrival.

Melocactus melocatoides or as listed incorrectly in some lists as M. violacea, has been in bloom for the last six months (Brazil) but fresh seed will arrive any day now; this is a conical Cactus, 4 inches high and 6 in diameter.

Tibouchina bicolor seed has just arrived and as this is an exceptionally good strain of this hard-to-find tropical tree, those in the far South will want to get some of it germinating at once. Packets are \$1.00 and it is my guess that it would do best on our milled sphagnum, if you do not have any, mention it when ordering and I will include enough for the seed, without charge; in return, please write us your results. The purple species of Tibouchina will come along about June or July and if you want to try it, get your order in now and let us send you fresh seed; packets are 75¢.

Phaeomeria magnifica seed has just come in and as it comes from the tropics, now is the time to plant it while the seed is fresh. This has the typical ginger type foliage and habit of growth, however, clumps are somewhat scarce, due to the height of the plants, which under favorable conditions will attain a height of 15 feet. In the greenhouse, stunted plants may form, that still flower. The inflorescence from subterranean rhizomes and consist of a veritable torch-like single flower of of salmon or red color, and about twice the size of a man's fist. Seeds germinate readily on, or just under, carefully prepared rich soil. Often a layer of chopped sphagnum is very beneficial. It is a greenhouse subject in the North. We hope to have pictures of this in our next issue.

I might mention here that a great many tree seeds have been received around the first of May and hope those having orders on file had species among these arrivals.

KNEE SAVERS

JUDSEN
MOLDED RUBBER
KNEE PADS



FOR EVERY
"DOWN-ON-THE-KNEES"
JOB!

No matter what the "down-on-the-knees" job is, Judsen Knee Pads let you do it faster, easier and with comfort. They've been standard knee protection for over 30 years.

Order NOW of

HARRY E. SAIER Dimondale, Mich.

Notes on Seed Planting

In germinating seeds one must consider these three factors: moisture, oxygen and temperature.

Moisture is of first importance in practically all cases but the seed coat of the seed must also be considered, too. Very hard seeds, such as the Canna, must receive special treatment in nursery practice, where germination must occur with as little effort and lost time as is possible. Under natural conditions, the germination eventually takes place, even if only a small percentage grows.

The supply of oxygen, while seldom considered by the ordinary gardener, is, never the less, of great importance. There is a chemical reaction set up within the embryo by the heat and moisture and oxygen is a very necessary element for this change to be accomplished. Without these three factors, germination fails.

Temperature, of course, is of great importance and as a general rule, ordinary outdoor plants germinate between 50 and 70 degrees F.; conservatory plants, 60-80; and tropical or so-called stove-plants, 75-95 degrees.

Temperature Requirements

Naturally, the higher the temperature that is required, the more moisture, especially in the air, is necessary.

There is also a great difference in the seed of various plants as well as of the various lots of seeds in the same species. Pansies, for instance, may vary a great deal, depending upon its harvest. It is necessary to pick the seed early, before the capsules burst and scatter their seeds. If picked too early, the seed naturally will be immature and thus the sooner it is planted the better, but properly harvested, the seed can be held in storage for a considerable time. Other seeds lose their moisture quickly, in storage, and thus lose their germination, and, again, there are kinds of seeds, such as the Cucumber and Primula, that even germinate the second or third year, better than during the first year after harvest.

One must have some knowledge of the seeds of the plants he is trying to grow and this can come only by experience and continual study. It cannot all be told in a few lines on the seed packet as some seem to think.

Time to Sow Seeds

There is a proper time to sow all kinds of seeds. Probably the first consideration would be the requirement of the species, itself. Most cultivated plants that have been grown by man for many generations, have become adapted to planting at most any time but those plants that have but recently been grown under nursery practice, or the 'untamed' species, as commonly stated, are more exact in their time for germination. One must know these requirements, if he is to save time and effort.

Then there is the time element to be considered in commercial planting. Seed can be more profitably planted in July than in May, if the July sown seed will produce just as saleable plants for the next Spring sales. Two or three months of unnecessary work is thus saved. However, with the amateur this may mean play to him and thus his timing is not so important.

Much has been written about the soil for the seed bed, and much that is written on the subject is misleading. So much sand must be measured out; then one must have just so much leaf-mold; peat must or must

not be used, etc. It is all a complicated matter if looked at from this point of view.

Going back to the beginning of this article, is the requirement of oxygen. This is supplied mainly by air, then it follows that the soil should be reasonably open and loose, so that air can be present. In nature the Spring rains contain much free oxygen which supplies this need but in the seed pan this is different and usually the water is tap water without a trace of oxygen in it, so the oxygen supply so necessary to start germination must be supplied by a fresh loose soil and of course, sand mixed in will tend to make this possible. Leaf-mold, so often mentioned, also affords oxygen to the soil but its main value is more in its supplying soil organism that in turn, set up an oxydation process that assists to this end.

The Moisture Content

The matter of moisture in the seed pan or bed, too, must be considered from the oxygen point of view. A soil continually overwatered and that does not drain readily, eliminates the oxygen in the soil. It can be easily seen that correct watering, as well as proper drainage is of great importance. The soil should be such as will allow the surplus water to drain off readily and in doing so, it draws into the soil a fresh supply of air or oxygen.

The proper temperature for each kind of seed is of importance. Alpine seed germinates only under cool conditions; others need a very warm temperature. These have to be known and the less the particular plant has been grown by man, the more demanding the plant is that natural conditions be followed.

Shade When Required

The matter of shading, whether light or darkness, is a subject little considered by most growers. In the case of some seeds, it is not very important but with many seeds, it is. Beds or pans of many species covered with common muslin, germinates perfectly, while if left to the direct sun light, the germination is variable. My own experience with many seeds indicate that this shading should always be kept in mind. Delphiniums germinate very much better if shaded or the seed pan placed in the dark side of the room.

The matter of peat, lime and other such items, that in the end only mean whether the soil should be acid or alkaline, is a matter to be considered when the seed is being planted. Naturally, where a certain plant has always grown in sour soil, such as is found in low places, and an acid soil will have to be supplied in the seed pans or beds.

PERENNIAL FLOWER SEED

Per Oz. Per Lb.

DELPHINIUM

Gahad Series. White.....	3.00	30.00
Blue Jay, mid-blue; drak bee.....	3.00	30.00
King Arthur. Royal purple.....	3.00	30.00
Camelopard. Lavender; w bee.....	3.00	30.00
Blue Bird. Mid-blue; W bee.....	3.00	30.00
Black Knight. Dark blue.....	3.00	30.00
Lancelot Series. Clear lilac.....	3.00	30.00
Summer Skies. Light blue; WB.....	3.00	30.00
Round Table. Blend of Series.....	2.50	25.00

PANSY

Swiss Giants. The best strain 2.00 20.00
ELIX. The NEW 'whiskered' Pansy;
have some plants of this..... 5.00 50.00

LUPINS

Russell Peenniel Strain..... 4.00 4.00
Oregon Giants..... 3.00 25.00

HARRY E. SAIER Dimondale Michigan

CLASSIFIED ADVERTISEMENTS

We wish to make this classified section of special value to our readers who may have plants, roots or any other item that they wish to sell or exchange.

The charge will be 10¢ per line of 7 words, per insertion; four insertions at price of three. When offering plant material know your nursery laws.

SEEDS FOR SALE

BEAUTIFUL INDIAN ORCHIDS Himalayan Flower Bulbs, Anemone, Sternbergia, Iris, Tulips, Unusual charming seeds. G. Ghose & Co. Townend, Darjeeling, India. 19

JOES BULLETIN, issued bi-monthly, tells you where you can buy flowering and ornamental plants, shrubs or bulbs at half of standard catalog prices. Two years \$1.00. Sample free. 1854 24th Ave. N., Seattle, 2, Washington. (22)

HERB SEEDS AND PLANTS: We specialize in raising herb seeds and grow all popular and many rarer kinds. Also field-grown perennial herb plants. Our descriptive folder lists many varieties at reasonable prices. PLANTATION GARDENS, RFD 2, Box 193, Lynchburg, Virginia.

DAYLILY SEEDS hand pollinated from choice hybrid reds, rose, pastels. Fresh seed (mixed only) 10 for 30¢; 40 for \$1.00. Ffoulkes, 610 Bryan, Jacksonville, 2, Fla.

AMARYLLIS BULBS

AMARYLLIS GIANT HYBRIDS, mixed colors bulbs, also seedlings, offspring of Dutch and Mead strain. Prices on request. Philip Pate, Kissimmee, 14, Florida. 20

GLADIOLUS BULBS

SPRINGGLADS: Hardy Eurasian Species, fall planted, bloom in spring without thrips. List 16¢ free. Philip O. Buch, Rockaway, New Jersey.

PLANTS FOR SALE

MARANTAS and CALATHEA, beautiful under-leaf colors; Orchid-like flowers \$1.00 and \$2.00 each. PAUL A. GIROUARD, 2710 Lane St., Palatka, Florida. 11

CURCUMA PETIOLATA (orchid pink ginger or queen lily) Handsome plaited foliage, flowers in mid-summer, exotic cut flowers. In North, dig and store tubers. Large dormant clumps 3-5 yrs. \$1.50 prepaid. Free list. J. D. MARION, 214 Preston St., Shreveport, La. 11

EXOTIC DAY LILLIES, hand pollinated, choice crosses reds purples, rose, bicolors, pastels. Mixed "sprouted" seedlets (tiny plants) 10 for 60¢; 25, \$1.30; Seed 50, \$1.00; 1-year seedlings (mixed) \$1.25 Doz. Seed: Giant Hybrid GLOXINIA; AFRICAN VIOLETS 50¢ and \$1.00 pks; "Easy-do" directions. 100 African Violets, write for list. Leaves 7 for \$1.00; young plants 12 for \$4.00. Ffoulkes', 610 Bryan St., Jacksonville, 2, Fla. 12

COLUMBINE SEEDS

Aquilegia seed gives considerable trouble in germination and it is rather common to hear of failures. We, too, have some plantings fail and we wonder if much of the trouble on seed that is not over 16 months old if it is not caused by some sort of dormancy, may be in the embryo? It would be interesting to see if the seed would be benefited by stratification; the seed in nature germinates immediately after ripening and if saved, when it becomes dry, it might become dormant. Various treatments would have to be tried.

It would seem that in germinating the seed the temperature should be rather high and the seed bed be shaded or better completely dark till the seed germinates.

Dianthus Allwoodii make excellent pot plants for a sunny window sill. They flower the year around when properly handled.

AFRICAN VIOLETS: Roseonna leaves 4 for \$1.00; Gypsy leaves 7 for \$1.00. Unnamed African Violet seedlings, watch them bloom, 4 for \$1.00. Add 35¢ postage on all orders. Many old and new varieties, plants and leaves. Send stamp for list. Mrs. Sophia Baker, 2733 S. E. 35th, Portland, 2, Oregon. (Dept. S) 9

ACTINEA HERBACEA (Lakeside Daisy) 3-\$1.25; 10-\$4.00. Gentiana Andrewsi alba (White Closed Kentian) 3-\$2.00; 10-\$6.00. Postpaid. AMERICAN PERENNIAL GARDENS, Box 37, Garden City, Mich.

ARDISIA, glossy curled crisped leaves, red Christmas berries; plants \$1.00 to \$5.00 each, postpaid. PAUL A. GIROUARD, 2710 Lane St., Palatka, Fla.

POINSETTIA ROOTED CUTTINGS, for Christmas blooming, variety of reds, pink and white, for potting or garden planting. Cultural directions. 25 for \$3.50, 50 for \$6.50, 100 for \$11.00, FOB Kissimmee. Small orders 3 for \$1.00, postpaid. PHILIP PATE, KISSIMMEE, 14, FLA. (22)

AFRICAN VIOLET LEAVES. 12 for \$1.00 named varieties, plants 3 to 6 in. tall 3 for \$1.00, my choice. Gypsy Series leaves 20¢ each 7 for \$1.00; plants 2 for \$1.00. Roseonna leaves 3 for \$1.00; Please add 25¢ postage. Mrs. Sophia M. Baker, 2733 S. E. 35th Place, Portland, 2, Ore.

CUTTINGS: \$1.50 per dozen; house plants mixed or Begonias or Sweet Scented Geraniums, Mints, herbs, wild ferns; prepaid. Mrs. H. C. Sanborn, RFD 1, Thetford Center, Vt.

COLEUS CUTTINGS, RARE AND FANCY varieties; 50 assorted cuttings \$1.00 plus 20¢ postage. Sultana cuttings same price. A. T. Linder, 521 Nathan Hale Rd., West Palm Beach, Florida. ap

HARDY NATIVE ORCHIDS (Zone IV) Spring and Fall Delivery, Prepaid. Each Calopogon pulchellus, Grass Pink O. .75 Cypridium acaule, Pk. Ladyslipper .50 —arietinum, Ramshead Yel. Ladys'r 3.00 —pubescens, Common Yel. Ladys'r 1.00 —reginae, Showy Ladyslipper .1.00 Goodyera pubescens, Downy Rattlesnake Plantain 1.00 —repens, Creeping Rattlesnake P. 1.50 Habenaria ciliaria, Yel. Fringed Or. 1.00 —fimbriata, Large Purple Fr. Orchid 1.25 —lacera, Green Fringed Orchid 1.00 —psycodes, Small Pur. Fr. Orchid 1.25 Orchis spectabilis, Showy Orchid 1.25 Pogonia ophioglossoides, Rose Pog. 1.00 Spiranthes cernuus, (Nodding Ladies Tresses) 1.25

SPECIAL: 4 of a kind for price of 3. HARRY E. SAIER, DIMONDALE, MICH.

COOKING SALSIFY

The Vegetable Oyster is a nice vegetable that should be planted in all vegetable gardens; its culture is the same as for Parsnips.

In cooking Salsify, scrape the roots, leaving whole and steep in water containing a little lemon juice or vinegar; boil till tender; allow to cool then cut in slices, fry quickly to a light golden brown, dust with salt and white pepper, serve with a sauce.

MAGAZINE and SEED LIST

You will note that the new seed listings are being set in single columns now. This is necessary when the entire list is set up at one time, as will be done in the future.

This new form will allow us to add much more cultural information, prices in ounce and pound lots and many other important items that could not be done on one two column lines. We want to make the seed list informative as well as a sales medium.

A Lovely Capsicum

The Capsicum seed I bought of you last year was very nice. In the blend I had many lovely ones.

Among the miniature type was one lovely variety but I wouldn't call it dwarf. It grew to about 18 inches high, the stalk nearly black; the leaves very dark green and crinkled-like and the fruit was the loveliest I have ever seen, it grew on long pendent stems and scalloped-like on the patty-pan squash, bright scarlet.

By Mrs. James E. Winfield, N. Y.

NOTE: We are sorry not to be able to name this variety; seed of the ornamental peppers comes to us from all over the world and last year there was new seeds from French colonies as well as some from Mexico that was not in the blends formerly. Mrs. Winfield kindly supplied us with seed from her plant and it is now growing; we hope it has not crossed with other plants in her collection.

Has any of our readers a pepper such as above?

PAGING CARTER D. HOLTON.

Before the war in China, we received tree seeds from Mr. Carter who then was connected with The Christian and Missionary Alliance in Linsia, Kansas, China.

We would like to contact Mr. Holton, and we believe he resides in California, if he is not in some Communist prison camp; can any of our readers help?

WOOD ASHES AS A SEED BED

It is well known that fresh wood ashes are caustic, and its use around tender plants is usually fatal to them.

The seeds of many plants, like the Acacia are very hard and do not germinate readily under ordinary conditions as we know them in most parts of the United States, but in the planting of such seeds the use of fresh wood ashes is indicated. We would appreciate hearing from readers who have tried this method out.

While on the subject of ashes it will be well to mention the fact that coal ashes are valuable when added to the soil and especially the seed bed soil. Of course, they should be left in a pile for a year so that any chemicals can be leached out of them, then sifted to remove any clinkers.

AFRICAN VIOLET LIST

A paper covered booklet, by Carolyn K. Rector, has just been published. It is printed from typewritten set-up and lists the names of some 1,500-1,800 African Violet varieties, with the name, if known, of the introducer. Very short descriptions are given of each variety. It would be of interest only to the African specialist.

NEW SEED LIST

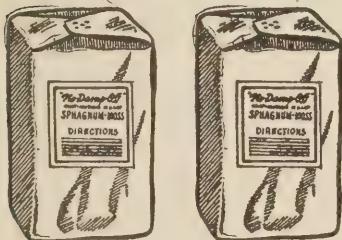
A new seed list is being printed now and it will be mailed to all subscribers and those who have ordered seeds from the number 9 list issued in February. We may be able to mail out a few free copies to old names on our mailing list but if you are interested in the next issue, it will be necessary to drop us a postal, asking for a copy.

This list will include all Iris and Peony offers, Botanical Bulbs and other fall bulbs; some 400 additional seeds not listed in the February list; a complete, to date, tree seed list with latest prices; Palm seed and many prices in ounces and pounds on perennial seed. This list will be much more complete and part will be reset into single columns.

New seed list mailed upon request.

GARDEN SUPPLIES - INSECTICIDES - FERTILIZERS

SPHAGNUM FOR GERMINATING



It is simply impossible to germinate many seeds without the use of milled sphagnum moss. If you were over your seed pans all day long as the professional grower is you may find you could get along without it, but no professional grower would fail to have the fine moss on hand. It will save many a packet of valuable seed from loss due to an hours neglect, that can not be avoided by one having other duties.

Now packed in $\frac{1}{2}$ bushel boxes containing approximately $\frac{1}{2}$ bushel; \$1.50 postpaid.

PEAT MOSS

Necessary in the germination of many seeds such as Ilex, Vacciniums and other acid loving plants

	Postpaid
1 Peck Packages	.70
3½ " "	1.30

ROSE PLANT FOOD

100% plant food, organic formula of dried blood, fish scraps, bone meal, guano, potash, cotton seed meal, nitrate of soda, sulphate of ammonia, poultry manure powder and superphosphate, a 7-8-5 formula.

ONE LB. PKGS. 75¢

DU PONT 10% DDT INSECT POWDER

Controls cockroaches, flees, ants, bed bugs, moths, ticks, carpet beetle and silver fish.

1 Oz. Puffer Cans, Postpaid.....	.25¢
3 Oz. Puffer Cans.....	.50¢

ACTIVO

Quickly and cheaply makes rich, soil building humus from house and garden wastes.

Energizes bed, pot, garden and orchard soils.

COMPOSTING - Bring following types of materials into well drained heap, large barrel or hogshead, or ventilated garbage can: table scraps, fruit wastes, leaves, grass clippings, garden rubbish, sewage or sludge, citrus pulp, peat, etc:

Use as much garbage and other rich wastes as possible. Neutralize with ground limestone, and add a few shovels of ordinary soil for compacting the mass. Mix in 1-3 lbs. of ACTIVO for each (approx) 250 lbs. compost. Moisten. Keep moist, but NOT wet. Use greater amounts of garden soil to compact leaves and other light, dry materials.

Better, mix in a handful or so (for each bushel of compost) of commercial fertilizer or plant food or ammonium sulphate, ammonium nitrate, etc.

No. 2. (approx. 2½ lbs. gross)	\$1.35
No. 7: (Approx. 6½ lbs. gross)	\$2.20

FERTO POTS

FERTO-POTS have taken the gardening world by storm. Users highly enthusiastic. Millions sold.

Pots made of rich rotted cow manure in automatic pot machines and kiln dried. No wilt, no set-back; quicker, better results if seed, bulbs, plants, cuttings are started in FERTO-POTS. When transplanted outdoors pot and all goes into the ground. Pots soften up in the moist soil and feed the plants. Excellent results as liners inside clay pots for African Violets and other house plants. FERTO-POTS are a boon to professional growers and home gardeners alike. Shipped prepaid at following prices: (Add 10% for Pacific Coast States).

PRICES: All prepaid by parcel post.

No. 2. Dozen	55¢
No. 2½ Dozen	75¢
No. 3 Dozen	85¢

100, \$3.00; 500, \$11.50
250, \$6.60.
No. 3 Dozen 85¢; 100, \$3.50; 250, \$8.50

HY-GRO PLANT FOOD

A SOLUBLE PLANT FOOD

A soluble plant food that can be used while you water your plants. It is immediately available as the solution penetrates into the soil and continues to feed over a long period. Will not harm roots or leaves. Can also be used in transplanting. Best applied to pots when they are dry and need watering.

Starter Solution for Transplanting for flower and vegetable seedlings, perennials, shrubs, etc. Checks wilting and gives transplants a healthy start for rapid growth.

FORMULA: 13-26-13

3 Oz. Bottle. Postpaid	.60¢
3 Bottles, postpaid	\$1.10

HAMMOND'S SLUG SHOT

Destroys many insects that prey upon house and garden plants.

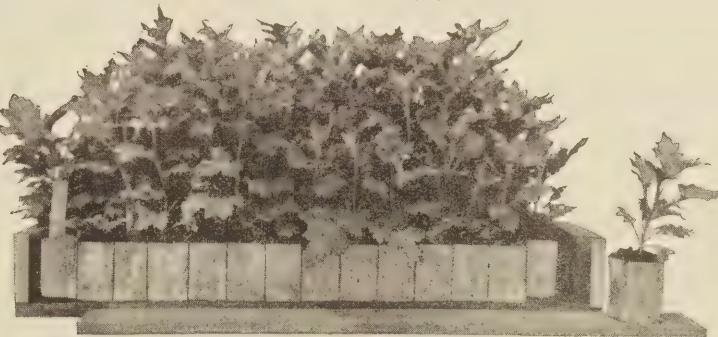
It is most effective when used as a powder and applied lightly over the infected parts. One application is generally sufficient.

1 lb. Cans. Postpaid.....	.75¢
3 Cans. Postpaid.....	\$1.50

VERMICULITE

Special for seed beds, for cuttings or for mixing in potting soil. It comes in three sized paper bags; the small size will take care of the germination needs of the small grower.

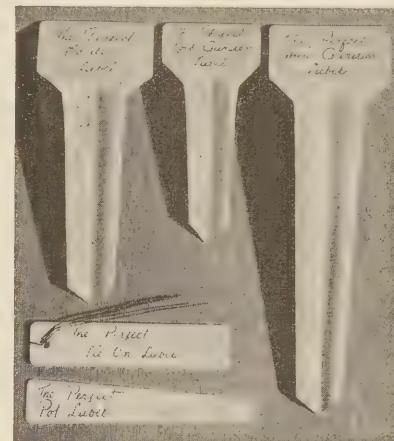
PRICES: 4 qt. bags, 55¢; $\frac{1}{2}$ bushel bags, \$1.00; 2 bushel bags, \$2.45, prepaid by mail.



PERFECT LABEL

MARK with ORDINARY LEAD PENCIL

Mark with your ordinary lead pencil; it is permanent and will not fade or become unreadable. If you wish to make any changes an ordinary eraser will remove the writing.



PRICES

5 inch; width of marking space 2 inches: 12 labels; \$1.25; 25 for \$2.40; 100 \$9.25

7 inch; width of marking space 2.1/8 inches: 12 labels: \$1.50; 25, \$2.90; 100, \$11.25.

POT STAKES

3 inch: 90¢ doz; 250 for \$4.00.

Painted stakes 3/8 inch wide; prepaid.

4 inch: 65¢ per 100; 1,000 for \$4.50.

5 inch: 70¢ per 100; 1,000 for \$4.50.

8 inch: \$1.00 per 100; 500 for \$4.75

10 inch: \$1.15 per 100; 250 for \$2.50

12 inch: \$1.30 per 100; 250 for \$4.00.

14 inch: \$1.50 per 100; 250 for \$4.50.

16 inch: \$1.75 per 100; 250 for \$5.00.

18 inch: \$2.00 per 100; 250 for \$5.50.

20 inch: \$2.25 per 100; 250 for \$6.00.

22 inch: \$2.50 per 100; 250 for \$6.50.

24 inch: \$2.75 per 100; 250 for \$7.00.

26 inch: \$3.00 per 100; 250 for \$7.50.

28 inch: \$3.25 per 100; 250 for \$8.00.

30 inch: \$3.50 per 100; 250 for \$8.50.

32 inch: \$3.75 per 100; 250 for \$9.00.

34 inch: \$4.00 per 100; 250 for \$9.50.

36 inch: \$4.25 per 100; 250 for \$10.00.

38 inch: \$4.50 per 100; 250 for \$10.50.

40 inch: \$4.75 per 100; 250 for \$11.00.

42 inch: \$5.00 per 100; 250 for \$11.50.

44 inch: \$5.25 per 100; 250 for \$12.00.

46 inch: \$5.50 per 100; 250 for \$12.50.

48 inch: \$5.75 per 100; 250 for \$13.00.

50 inch: \$6.00 per 100; 250 for \$13.50.

52 inch: \$6.25 per 100; 250 for \$14.00.

54 inch: \$6.50 per 100; 250 for \$14.50.

56 inch: \$6.75 per 100; 250 for \$15.00.

58 inch: \$7.00 per 100; 250 for \$15.50.

60 inch: \$7.25 per 100; 250 for \$16.00.

62 inch: \$7.50 per 100; 250 for \$16.50.

64 inch: \$7.75 per 100; 250 for \$17.00.

66 inch: \$8.00 per 100; 250 for \$17.50.

68 inch: \$8.25 per 100; 250 for \$18.00.

70 inch: \$8.50 per 100; 250 for \$18.50.

72 inch: \$8.75 per 100; 250 for \$19.00.

74 inch: \$9.00 per 100; 250 for \$19.50.

76 inch: \$9.25 per 100; 250 for \$20.00.

78 inch: \$9.50 per 100; 250 for \$20.50.

80 inch: \$9.75 per 100; 250 for \$21.00.

82 inch: \$10.00 per 100; 250 for \$21.50.

84 inch: \$10.25 per 100; 250 for \$22.00.

86 inch: \$10.50 per 100; 250 for \$22.50.

88 inch: \$10.75 per 100; 250 for \$23.00.

90 inch: \$11.00 per 100; 250 for \$23.50.

92 inch: \$11.25 per 100; 250 for \$24.00.

94 inch: \$11.50 per 100; 250 for \$24.50.

96 inch: \$11.75 per 100; 250 for \$25.00.

98 inch: \$12.00 per 100; 250 for \$25.50.

100 inch: \$12.25 per 100; 250 for \$26.00.

102 inch: \$12.50 per 100; 250 for \$26.50.

104 inch: \$12.75 per 100; 250 for \$27.00.

106 inch: \$13.00 per 100; 250 for \$27.50.

108 inch: \$13.25 per 100; 250 for \$28.00.

110 inch: \$13.50 per 100; 250 for \$28.50.

112 inch: \$13.75 per 100; 250 for \$29.00.

114 inch: \$14.00 per 100; 250 for \$29.50.

116 inch: \$14.25 per 100; 250 for \$30.00.

118 inch: \$14.50 per 100; 250 for \$30.50.

120 inch: \$14.75 per 100; 250 for \$31.00.

122 inch: \$15.00 per 100; 250 for \$31.50.

124 inch: \$15.25 per 100; 250 for \$32.00.

126 inch: \$15.50 per 100; 250 for \$32.50.

128 inch: \$15.75 per 100; 250 for \$33.00.

130 inch: \$16.00 per 100; 250 for \$33.50.

132 inch: \$16.25 per 100; 250 for \$34.00.

134 inch: \$16.50 per 100; 250 for \$34.50.

136 inch: \$16.75 per 100; 250 for \$35.00.

138 inch: \$17.00 per 100; 250 for \$35.50.

140 inch: \$17.25 per 100; 250 for \$36.00.

142 inch: \$17.50 per 100; 250 for \$36.50.

144 inch: \$17.75 per 100; 250 for \$37.00.

146 inch: \$18.00 per 100; 250 for \$37.50.

148 inch: \$18.25 per 100; 250 for \$38.00.

150 inch: \$18.50 per 100; 250 for \$38.50.

152 inch: \$18.75 per 100; 250 for \$39.00.

154 inch: \$19.00 per 100; 250 for \$39.50.

156 inch: \$19.25 per 100; 250 for \$40.00.

158 inch: \$19.50 per 100; 250 for \$40.50.

160 inch: \$19.75 per 100; 250 for \$41.00.

162 inch: \$20.00 per 100; 250 for \$41.50.

164 inch: \$20.25 per 100; 250 for \$42.00.

166 inch: \$20.50 per 100; 250 for \$42.50.

168 inch: \$20.75 per 100; 250 for \$43.00.

170 inch: \$21.00 per 100; 250 for \$43.50.

172 inch: \$21.25 per 100; 250 for \$44.00.

174 inch: \$21.50 per 100; 250 for \$44.50.

176 inch: \$21.75 per 100; 250 for \$45.00.

178 inch: \$22.00 per 100; 250 for \$45.50.

180 inch: \$22.25 per 100; 250 for \$46.00.

182 inch: \$22.50 per 100; 250 for \$46.50.

184 inch: \$22.75 per 100; 250 for \$47.00.

186 inch: \$23.00 per 100; 250 for \$47.50.

188 inch: \$23.25 per 100; 250 for \$48.00.

190 inch: \$23.50 per 100; 250 for \$48.50.

192 inch: \$23.75 per 100; 250 for \$49.00.

194 inch: \$24.00 per 100; 250 for \$49.50.

196 inch: \$24.25 per 100; 250 for \$50.00.

198 inch: \$24.50 per 100; 250 for \$50.50.

200 inch: \$24.75 per 100; 250 for \$51.00.

202 inch: \$25.00 per 100; 250 for \$51.50.

204 inch: \$25.25 per 100; 250 for \$52.00.

206 inch: \$25.50 per 100; 250 for \$52.50.

208 inch: \$25.75 per 100; 250 for \$53.00.

210 inch: \$26.00 per 100; 250 for \$53.50.

212 inch: \$26.25 per 100; 250 for \$54.00.

214 inch: \$26.50 per 100; 250 for \$54.50.

216 inch: \$26.75 per 100; 250 for \$55.00.

218 inch: \$27.00 per 100; 250 for \$55.50.

220 inch: \$27.25 per 100; 250 for \$56.00.

222 inch: \$27.50 per 100; 250 for \$56.50.

224 inch: \$27.75 per 100; 250 for \$57.00.

226 inch: \$28.00 per 100; 250 for \$57.50.

228 inch: \$28.25 per 100; 250 for \$58.00.

230 inch: \$28.50 per 100; 250 for \$58.50.

232 inch: \$28.75 per 100; 250 for \$59.00.

234 inch: \$29.00 per 100; 250 for \$59.50.

236 inch: \$29.25 per 100; 250 for \$60.00.

238 inch: \$29.50 per 100; 250 for \$60.50.

240 inch: \$29.75 per 100; 250 for \$61.00.

242 inch: \$30.00 per 100; 250 for \$61.50.

244 inch: \$30.25 per 100; 250 for \$62.00.

246 inch: \$30.50 per 100; 250 for \$62.50.

248 inch: \$30.75 per 100; 250 for \$63.00.

250 inch: \$31.00 per 100; 250 for \$63.50.

252 inch: \$31.25 per 100; 250 for \$64.00.

254 inch: \$31.50 per 100; 250 for \$64.50.

256 inch: \$31.75 per 100; 250 for \$65.00.

258 inch: \$32.00 per 100; 250 for \$65.50.

260 inch: \$32.25 per 100; 250 for \$66.00.

THE BEST TALL BEARDED IRIS

AIRY DREAM. 3—\$04; 5—\$1.25 35¢
A soft clear pink self; 33"; L.

AL-LU-WE. 40"; M 40¢
A large bronze and red variegata, not
commonly offered but is top-notch.

AMALIA. 36"; M 40¢
Large dark red, a nice variety.

AMBASSADEUR. 42"; ML* Each 40¢
An AM variety in hyssop and carmine;
attractive.

AMBROSIA. 3—\$05¢ Each 35¢
A dainty variety in a fine satiny pink;
pretty for near spots; 36"; M.
No. 2 Doz. 60¢; 100, \$2.25; 500, \$8.50.

AMIGO. 3—\$1.00 Each 50¢
An enchanting pansy color; striking
contrast with clear light lavender standards
foiled by the deep purple-velvet
edged falls; HM; AM; 34"; EM.

AMITOLA. 3—\$04; 5—\$1.30 Each 40¢
A russet pink with attractive gold
blend; 38"; L.

MICHIGAN GROWN IRIS

Michigan grown Iris cannot be excelled.
The soil and climate are ideal for all
root growing plants.

Some sections in the West, produces a
large showy white rhizomes, which comes
from irrigation; these rhizomes are soft
and we have found that at least a years
start is lost in planting them.

Michigan rhizomes are not so large but
they are solid and hard. Michigan winters
tend, also, to produce a tough rhizome.

Where carriage charges are not paid by
the shipper, the extra weight amounts to
considerable, too.

SHIPPING TIME

All the bearded Iris can be shipped begin-
ning about July 20th. The Siberian
and some of the species are shipped later.

BERKELEY GOLD. 3—\$1.70 Each 75¢
A deep clear yellow self of fine form.
Color is intense and pure; HM; AM; 36".

BERMUDA SANDS. 3—\$2.10 Each 90¢
A heavily ruffled flower in a lovely
light coffee-tan color, a glint of gold
shining through to brighten the whole
The Dykes Winner for 1949; 36"; M.

BLACK HAWK. 28"; VE 50¢
Striking two-toned bloom; the standards
a brilliant mulberry, falls intense violet-
black, like black velvet.

BLUE HILLS. 3—\$04; 5—\$1.25 Each 35¢
Ruffled flowers in a showy cornflower-
blue; 40"; M.

BLUE RHYTHM. 38"; ML \$3.00
Soft medium blue with a silvery tone,
velvety in texture and a Dykes Winner in
1950.

BLUE SHIMMER. 3—\$2.00; 5—\$3.25 90¢
The clearest tone blue, peppered on
crisp enameled ivory-white. It is a charm-
ing plicata; HM; AM; 36"; M.

BLUE TRIUMPH. 3—\$1.20; 5—\$1.90 50¢
The finest light blue, received both a
HM; AM; 42 inches; M.

BRANDYWINE. 3—\$1.20; 5—\$1.80 Each 50¢
Large silvery blue flowers; 36"; M.

BRUNHILDE. 36"; EM 50¢
A very uniform dark rich violet-blue
self with a blue cast beard; HM; AM.

BUCKSKIN. 50¢
This is by far the best tan colored
Iris. It is a tall grower and bears many
large blooms with large closed standards
and wide flaring falls.

BUFFAWN. 34"; E 50¢
A beautiful soft pinkish self with the
most brilliant red-orange beard. It is
an unusual color and very desireable.

BURGUNDY ROSE. 35" \$2.50
The color blend of this strong growing
variety is very striking. Blooms are ruf-
fled, large, a dark amethyst color and
free blooming.

BUTTERCUP LANE. 32" 50¢
A very heavily ruffled clean bright yellow
low on strong stems. An ideal variety.

CALCUTTA. 42"; M* 35¢
An unusual color; coconut-brown; at-
tractive.

CALIFORNIA PEACH. 38"; EM 50¢
A beautiful pink-peach and apricot color
with much more gold and yellow in it than
China Maid; HM.

CAPT. COURAGEOUS. 44"; M 35¢
Pretty rose-buff color not often found
listed.

CARFAX. 48"; M 35¢
A huge auricula purple flower.

CHEERIO.

One of the best early red bicolors, very
popular. It is of good form and size.

CHINA MAID. 36"; E 50¢
A very beautiful blend in shades of
pink, golden copper and lilac, smoothly
blended together; large size and fine
form; HM; AM.

CHRISTAAEL. 36"; M 50¢
Dependable mid-season glowing red with
a smooth finish and brilliant yellow beard;
flowers are large and beautiful 50¢

CITY OF LINCOLN. 3—\$1.25 Each 50¢
Rich golden yellow standards and bright
velvety red falls. We like this variety
very much and groups of it in the garden
makes it stand out above all others; HM;
AM; 42"; ML.

CLARA NOYES. 30"; M 40¢
A fascinating color blend in tones of
yellow, orange and apricot.

CLARIBEL. 40"; M 40¢
Large flowered, vigorous white plicata
with blue stitching.

COPPER LUSTRE. 36"; M 50¢
It definitely glows in its bright copper,
gold and tan blendings, a very beautiful
Iris. It was the 1938 Dykes Winner.

COPPERSMITH. 42"; M 35¢
A pretty vinaceous flushed magenta with
a coppery sheen; HM.

CORONET. 42"; L* 50¢
A very pretty golden tan blend; HM;
this is a real pretty variety for its color.

CORRIDA. 42"; L 35¢
Pretty sky-blue with darker veins; AM.

CRYSTAL BEAUTY. 3—\$1.00 Each 35¢
A clean white variety that should be in
all collections, especially as it is not costly.
45 inches; ML.

CYRUS THE GREAT. 38"; E 40¢
A regal dark blue; HM.

DEPUTE NOMBOLT. 52"; M 50¢
Huge claret-crimson variety; Dykes Win-
ner; AM; a dandy.

DESTINY. 36"; ML 40¢
Velvety, blackish plum-purple and a
rich, heavy flower of good form and stem.
One of the best of the dark Irises.

DIRECTEUR PINELLE. 3—\$1.00 40¢
A dark bronze-red; AM; really a fine
variety; 48 inches; M.

DOGROSE. 48"; M 40¢
A superb pink winning the Silver Medal;
not often found listed.

DOLLY MADISON. 36"; E 40¢
Mauvette flushed pale colonial buff;
heavy substance; HM.

DORE. 40"; ML* 35¢
A pretty Daffodil color.

DYMIA. 3—\$04; 5—\$1.40 Each 35¢
A deep plum color, almost black; HM;
38 inches; M*.

EASTER MORN. 42"; M* 50¢
A heavy textured white receiving both
an AM and HM.

EL TOVAR. 36"; M 40¢
Honey-yellow standards and falls almost
black; HM; AM; good.

ETHELWYN DUBUAR. 38"; ML* 30¢
Orchid pink.

EXCLUSIVE. 38"; L 40¢
A beautiful light blue overlaid with a
silvery mist producing a powder blue;
HM; AM.

FAIR ELAINE. 35"; M 50¢
An entrancing bicolor, pale primrose to
cream-white standards and blazing rich
gold falls. It is very attractive; HM; AM.

(Continued on Page 347)



LOS ANGELES

ANGELUS. 3—\$1.20; 5—\$1.60 Each 50¢
A very distinct and beautiful color in a
creamy lavender-pink. The petals are
broad, large; substance heavy; HM; AM.
36 inches; Late.

ARAB CHIEF. 80¢
This variety is a most attractive rich
burnt orange, almost a henna tone. It is
one of the brighter and most attractive
and a favorite; HM.

ARCTIC. .50¢
Profuse blooming; beautiful huge flowers
of white and gold.

AT DAWNING. 3—\$1.00 Each 50¢
Beautiful pinkish white standards with
a gold base; falls a soft rose, gold-veined
throat and deep orange beard.

AVONDALE. 3—\$1.50; 5—\$2.40 45¢
A pretty strawberry-red; HM; 33"; M.

AZURE SKIES. 3—\$1.50; 5—\$2.40 60¢
A lovely ruffed pale lavender self. The
standards are domed and flaring, falls almost
horizontal, accented by a showy
white beard; HM; AM; 33"; ML.

BALDWIN. 3—\$04; 5—\$1.25 Each 35¢
A large attractive lavender-blue color;
HM; showy; 40"; M.

BALLET GIRL. 36"; EM 50¢
A very delicate shade of pink. It is a
distinctive variety.

130 OF THE BEST VARIETIES

ELSA SASS. 36"; ML Each 50¢
A most distinctive color, closed standards of deep lemon, semi-flaring falls of deep lemon, washed cream at center. It is a strong grower; HM; AM.

FLORA ZENOR. 40"; EM Each 50¢
An exotic color blend of pale cameo-pink shading into hafts of a deeper rose, all set off with its vivid red beard; AM.

GLORIOLE. 3—\$1.00; 5—\$1.50 Each 40¢
A huge frosty pale blue of excellent substance; HM; AM; 40"; M.

GOLDEN HIND. 3—\$1.10; 5—\$1.75 40¢
A very showy rich, clear, buttercup yellow and white; its richness is possessed by few Iris. The Dykes Winner for 1939. 30 inches; M.

G. P. BAKER. 3—\$1.20; 5—\$1.65 Each 50¢
A masterpiece yellow, 12 blooms to the stalk; AM; Dykes Winner; 60"; M.

GOLDEN FLEECE. 3—\$1.80 Each 75¢
This is wholly unlike any other Iris. A lemon-colored flower with creamy falls edged gold and beautifully ruffled, huge in size; HM; AM; 36"; ML.

GOLDEN MAJESTY. 3—\$1.25; 5—\$1.75 50¢
Striking lovely rich golden yellow with a broad form and well branched stems. Its color is very even and rich; HM; AM. 40 inches; ML.

GOLDEN SPIKE. 3—\$1.25 Each 50¢
A splendid clear waxy deep yellow with a showy thick orange-yellow beard; AM.



WABASH

36 inches; M.

GOLDEN TREASURE. 3—\$1.25 Each 50¢
Solid deep cream with a rich golden orange all about the central portion of the flower. It stands out in any planting; very floriferous; 38"; M.

GRAND CANYON. 3—\$1.60 Each 60¢
An outstanding blend of canyon colors, plum, copper and gold. It is slightly ruffled and must be seen to be fully admired; AM; 38"; M.

GREAT LAKES. 3—\$1.60; 5—\$2.30 60¢
A pretty pure clear blue Iris. Petal texture is flaring and crisp, the beard almost white. It was the 1942 Dykes Winner and still not equalled; 46"; M.

GUDRUM. 3—\$1.00 Each 40¢
An enormous creamy white with petals resembling a magnolia. Brilliant orange beard and a slight gold-dust sprinkling over the entire bloom; heavy texture. The Dykes Winner for 1931.

PLANTING DIRECTIONS FOR IRIS

There is nothing difficult in setting out Iris. The rhizome should be half out of the soil, but in planting some dirt can be drawn towards the rhizome so as to hold surface moisture. This high soil can be removed by the next spring, when much of it will naturally level off by the action of the rains and in hoeing.

When Iris are set out, say after September 15th, it is best to draw 2-3 inches of soil over the rhizome, just before freezing. This will keep most of the plants from heaving out during the winter; the first thing in the spring, go over the Iris and see that all rhizomes are pushed back into the soil and also draw some of the excess soil off the rhizomes.

All Iris plants should be well drained so that water never stands around them.

Other than the above little else is of special importance.

HAPPY DAYS. 39"; EM 35¢
Giant primuline yellow, veined morocco red; HM; AM.

HELEN McGREGOR. \$3.00
A very beautiful clear pale blue, flaring and easily ruffled. For light blue it is supreme; HM.

JASMANIA. 3—\$0.40; 5—\$1.40 Each 40¢
A pretty banana-yellow; HM; AM; 36 inches; ML*.

JEAN CAYEUX. 3—\$0.40; 5—\$1.40 40¢
A showy blend of coffee and Havana brown it must be seen to realize its beauty; a Dykes Winner; 36".

JEAN LAFITTE. 3—\$1.00; 5—\$1.50 05¢
Glowing coppery rose, a pretty variety. 36 inches; M.

JEB STUART. 36"; M 35¢
A beautiful red-brown; HM; AM.

KANSAS INGLESIDE. 34"; E 40¢
The first of the reds to bloom. It is a warm-toned brown-red self and very pretty. It also blooms again in the fall where the season is long.

KING JUBA. 3—\$0.40; 5—\$1.40 Each 35¢
Chamois variegata; this is a very pretty variety and much admired by visitors.

LADY MOHR. \$1.00
A cross between the bearded Iris and an Oncocycloides hybrid producing a most unusual Iris. The standards are clear oyster-shell white, the falls frosted chartreuse-yellow with prominent veining; slightly fluted; very pretty.

LEGEND. 3—\$0.40; 5—\$1.30 Each 40¢
A huge crimson-claret; showy; 36"; M.

LORD OF JUNE. 3—\$1.00 Each 40¢
Gigantic blue, the falls marked with old gold; AM; SM; 40"; M.

LOS ANGELES. 46" 40¢
Gigantic white with standards faintly edged blue and with blue styles. Very showy.

LOUVOIS. 3—\$1.00; 5—\$1.50 Each 40¢
Two shades of chocolate, deep, rich and velvety. Its a real valuable variety; AM. 36 inches; M.

MAJENICA. 36"; M 60¢
A salmon tinted pink with wide petals. It is a clear bright smoothly colored self.

MATTERHORN. 3—\$1.20 Each 50¢
A gigantic flowered, pure white with rounded down-falling falls with no veining visible; very light yellow beard; HM; AM. 38 inches; EM.

MELLANIE. 3—\$1.20; 5—\$1.80 Each 50¢
A lovely large flowered light pink. Truly a fine orchid-pink; 40"; M.

MING YELLOW. 3—\$1.25 Each 50¢
One of the largest, stateliest yellows, evenly toned. Its form and bloom are fine; HM; AM; 36"; M.

MISSOURI. 3—\$1.25; 5—\$1.80 Each 50¢
Strong, medium blue, with flaring petals. It should be in every Iris collection; 40".

MOROCCO ROSE. 3—\$1.25; 5—\$1.80 50¢
A really beautiful warm rose-pink self with a soft yellow glow at the center, beard bright gold; 40"; M.

MRS. WILLARD JACQUES. 29"; M 40¢
A pleasing watermelon pink, waved and frilled. 3—\$1.00; 5—\$1.60

MULBERRY ROSE. 3—\$1.90 Each 70¢
This is an outstanding variety. Color a deep radiant mulberry-rose self, having a brown shade; bronze beard; HM; AM; 40 inches; M.

NENE. 3—\$1.00; 5—\$1.50 Each 40¢
A dandy variety, standards soft lilac and falls rich old rose. The flowers are very large and showy; 38 inches.

OLA KALA. 3—\$2.00; 5—\$3.25 Each 90¢
A rich golden yellow, almost orange; the falls are flaring and slightly frilled. A Dykes Winner for 1948 and it has been very popular since; 38"; M.

OMAHA. 30"; M 40¢
Soft rose to brown-cinnamon; huge flowers.

PLUIE D'OR. 3—\$1.00; 5—\$1.50 Each 40¢
Dykes Winner; empire yellow; AM; good. 36 inches; ML.

PINK CAMEO. 36"; EM \$3.00
A new pink of outstanding value. The petals are slightly flaring; the pointed buds are much deeper in color, adding to its beauty.

PRAIRIE SUNSET. 3—\$1.60; 5—\$2.50 60¢
Really a glowing sunset blend of colors, pink, apricot and golden copper, brilliant. ML.

RAMSES. 3—\$1.00 Each 40¢
The Dykes Winner for 1932; olive-buff to tourmaline-pink; HM; DM; 40"; ML.

ROSE BOWL. 3—\$1.25 Each 50¢
Deep rose self with both haft and beard in gold; 40 inches.

ROSY WINGS. 3—\$1.00; 5—\$1.50 40¢
The Dykes Winner for 1939. A soft rose-red with a trace of coppered shining through and brightened with a bright orange beard; 38"; EM.

SABLE. 3—\$1.60 Each 60¢
Almost a black Iris, with a blue beard. Has a pretty lustrous sheen; 37"; EM.

SAN FRANCISCO. 42"; M 50¢
A Dykes Winner; a dandy lavender placa.

SHAH JEHAN. 3—\$1.00; 5—\$1.50 40¢
Rich oriental colors; much admired by visitors; 38"; ML.

SHARKSKIN. 38"; M .75¢
A pure white with a silken finish with a leather-like substance. It is one of the finer whites and should be in every collection. HM; AM.

SHINING WATERS. 3—\$1.00 Each 40¢
A lovely satiny blue; HM; AM; 48"; EM.

SHIRVAN. 3—\$1.00 Each 40¢
Rightly described as Shirvan rug color; pretty; HM; AM; 33"; M.

SNOW FLURRY. 3—\$2.00 5—\$3.00 60¢
Standards are a pure icy white, nicely ruffled; the falls large, broad and pure white. It is especially valued for its many flowers at one time; 36"; M.

SOLID MAHOGANY. 38"; M \$1.75
A smooth deep flowered mahogany-red. In the deep red class this is one of the very best; HM; AM.

(Continued on Page 348)

DWARF IRIS FOR THE ROCKERY

ARAMIS. 3-\$1.00 Each 35¢
A dainty light yellow of quality; 5"; E.

ARENARIA. 3-\$1.00 Each 35¢
The foliage is grass-like in this variety; the color a fine yellow.

AZUREA. 3-\$1.00; 5-\$1.50 Each 35¢
A pretty variety in pale blue with beard; second earliest to bloom; 3"; EE.

BLACK MIDGET. 3-\$1.25 Each 50¢
Almost a black color; shows up well against a white background; 9"; M.

BLUE BEARD. 3-\$1.00 Each 35¢
An unusual color, olive white with purple streaks on the falls; 8"; E.

BLUE JADE. 3-\$1.25 Each 50¢
Extra large flowers in dwarfs, dark blue-purple that glistens; 8 inches.

BRIDESMAID. 3-\$1.25 Each 50¢
Pale blue and yellow.

DIXMUIDE. 3-\$1.00 Each 35¢
A pretty rich violet-purple flower; strong grower; 10"; E.

DR. MANN. 3-\$1.00; 5-\$1.50 Each 35¢
A very long lasting prolific bloomer; smoky to Petunia-violet color; 6"; M*.

EBURNA. 3-\$1.00; 5-\$1.50 Each 35¢
Lovely whitish yellow; 10 inches; E.

ELF. 3-\$1.25 Each 50¢
A wide petaled red-purple that makes a bold effect in the rockery; 9".

FAIRY. 3-\$1.25 Each 50¢
One of the best "50"; light yellow.

FLORIDA. 3-\$1.00; 5-\$1.40 Each 35¢
A soft primrose-yellow; very attractive. 6 inches; Early.

GRAMINEA. 3-\$0.90; 5-\$1.40 Each 35¢
Strong growing rich red toned fragrant variety; 12 inches; E.

The Dwarf Bearded Iris has become very popular and next to the Tall Bearded, are the best Iris sellers. They are ideal for edging along walks and in the rockery.

Most of them grow about 8"-10" tall and they should be planted about 12" apart. They flower earlier than the other types of Iris and in the central states, may begin as early as March and by May are through, when the Intermediates and tall types begin to bloom. Their flowers are of the very best colors.

We offer only the best varieties.

HARBOR LIGHTS. 3-\$1.25 Each 50¢
Light yellow and of the best quality.

LADDIE BOY. 3-\$1.00 Each 35¢
A rich velvety deep blue; 15"; E.

LITTLE JEWEL. 3-\$1.25 Each 50¢
A pretty white variety with a faint blue cast and olive-green and ochre veins at the haft; E.

DWARF COLLECTION

20 Varieties of the above; our selection, all labeled, for ONLY \$6.35 postpaid. 10 Varieties for \$3.25.

LOBELIA. 3-\$1.00 Each 35¢
A very good dark blue self; 8"; E.

MOROCAIN. 3-\$1.25 Each 50¢
The standards are a clear violet; the falls a pansy-violet; nice.

MIST 'OPINK. 3-\$2.00 Each \$1.00
A showy red-pink with flaring falls; one of the best of the Dwarfs; 8"; E*.

TALL BEARDED IRIS

(Continued from Page 347)

SPANISH PEAKS. 38"; ML..... Each \$3.50
This is a complete white; white flower, white throat, half, the style arms and even the beard. It is nicely formed and of heavy substance; excellent; HM; AM.

SPUN GOLD. 3-\$2.00 Each 80¢
The 1944 Dykes Winner. It is very popular. The color is a rich velvety golden yellow and is an all around good variety. 38 inches; ML*.

STARDOM. 3-\$1.00; 5-\$1.50 Each 40¢
A beautiful salmon, shading to buff with a showy bright orange beard. Extremely vigorous; 34"; M.

THE BLACK DOUGLAS. 36" 40¢
A very rich and velvety blackish violet-purple. It is very popular. 3-\$1.00; 5-\$1.50

THE RED DOUGLAS. 3-\$1.60 Each 60¢
A very popular dark red Iris. Very uniform and of great size; the Dykes Winner for 1941. One of the finest Iris; 36".

THEODALINDA. 3-\$1.00 Each 40¢
The largest plicata of the Los Angeles type; a satiny white with buttonhole stitching of bright but delicate blue; 37".

TIFFANJA. 3-\$2.00 Each 90¢
Creamy colonial buff with more white cast falls, both speckled and sprinkled light golden brown; 36"; M.

TIFFANY. 36"; M 50¢
Yellow and maroon plicata with light yellow background. The heavy plicata borders are deep red-brown or maroon.

VIOLET SYMPHONY. 40"; M 75¢
A gleaming lilac-mauve self; huge in size and broad petals; it is a high ranking variety; HM; AM.

WABASH. 3-\$1.30; 5-\$2.00 Each 50¢
Here is a showy variety especially in



OLA KALA

groups. The standards are clean white and the falls bright purple. More white should be planted in the Iris garden and Wabash is especially good for this purpose. The Dykes Winner for 1940; 36"; M*.

WHITE CITY. 3-\$1.75 Each 75¢
Immense silken flowers of blue-white with a showy heart of plumbago-blue. It is a very showy variety; 44"; EM.

WINTER CARNIVAL. 38"; M* 90¢
A very large, crisp white with a touch of gold at the throat. It is a very beautiful variety and one of the best whites.

ORANGE QUEEN. 3-\$1.00 Each 35¢
A beautiful deep rich yellow; substance very good; fragrant; 6"; E*.

PUMILA ATROVIOLACEA. 3-\$1.00 5-\$1.50 Each 35¢
The Easter Iris; very dwarf and strong grower; violet color; 5"; EE*.

ROSE MIST. 3-\$1.00 Each 35¢
A very lovely mauve-pink; popular. 10 inches; early.

SCHNEEKUPPE. 3-\$1.00 Each 35¢
White with a cream throat; one of the best "50"; 6".

SILVER ELF. 3-\$1.00 Each 35¢
This has a pretty frilled flower in a silky silver white flushed royal purple on the falls; 10"; E.

SNOW MAIDEN. 3-\$1.20 Each 40¢
A nice brown-tan blend of colors and a creamy gold beard; 16"; E.

SOCRATES. 3-\$1.00 Each 35¢
An excellent massing variety; uniform garnet tones; 6"; E.

SPRING SKIES. 3-\$1.00 Each 35¢
A more vigorous Azurea; 6"; EE.

STEWART. 3-\$1.00; 5-\$1.50 Each 35¢
A small and dainty yellow self; 6"; EE*.

TAMPA. 10"; EE 35¢
Grass-like foliage; dainty; red toned with cream; HM.

TINY TONY. 3-\$1.00; 5-\$1.50 Each 40¢
Very small variety; red toned; 4"; E*.

TONY. 3-\$1.00; 5-\$1.50 Each 40¢
Richest wine color; orange beard; 3"; E.

VILLEREAL. 3-\$1.00; 5-\$1.50 Each 40¢
Very nice variegata in old rose; 8"; E.

YELLOW FRILLS. 3-\$1.00; 5-\$1.50 Each 40¢
A very choice deep yellow dusted gold; frilled flowers; 10"; E*.

SIBERIAN IRIS

These are shipped separately from the other types of Iris and will reach you late in September. See that the rhizomes are protected from heaving out of the ground by winter frosts. Otherwise there not special cultural directions.

BOB WHITE. 3-\$1.25 Each 50¢
A nice waxy snow white variety.

CAESAR'S BROTHER. 3-\$1.25 Each 50¢
A new blue; very nice.

GAY HEART. 3-\$1.25 Each 50¢
A nice dark blue self.

SIBERIAN COLLECTION

6 Varieties, my selection for ONLY \$2.50, postpaid. This is a special offer; all plants labeled.

HELEN ASTER. 3-\$2.25 Each 90¢
Well rounded rosy red with halo near the throat of the falls; AM; HM; 30".

WHITE DOE. 3-\$1.25 Each 50¢
A beautiful large white flower.

PERRY'S BLUE. 3-\$1.00 Each 50¢
One of the best blues.

PSEUDACORUS. 3-\$1.25 Each 50¢
A tall, late, bright yellow; to lengthen the season.

SKYLARK. 3-\$1.25 Each 50¢
An exquisite light blue.

SOUND MONEY. 3-\$1.25 Each 50¢
A good clear yellow; one of the best "50".

RE-BLOOMING IRIS FOR FALL

If you want Iris blooms in October and November, then try these beautiful varieties. They are all nice.

They give the regular crop of flowers in the spring, just ahead of the Tall Bearded Iris, and if given a rest following and then water freely, they usually produce a second crop of flowers in the fall.

AUTUMN ELF. 3-\$1.00 Each 35¢

A rich deep toned red bicolor; 18 in.; M.

AUTUMN FLAME. 3-\$1.40 Each 60¢

A lovely deep red bicolor; 34"; E*.

AUTUMN FROST. 3-\$1.00 Each 35¢

Alabaster white variety; HM; 36"; EM.

AUTUMN HAZE. 3-\$1.00 Each 35¢

This has a strong violet odor; light lavender and hyssop-violet; nice; 30"; E.

AUTUMN KING. 3-\$1.00 Each 35¢

Free blooming blue bicolor; 30"; M

AUTUMN QUEEN. 3-\$1.25 Each 50¢

One of the best white re-bloomers, flowering every month in some sections with two flowers to the stem; 18"; E.

AUTUMN SURPRISE. 3-\$1.00 Each 35¢

An excellent rebloomer in a medium blue color; 24"; M.

DORCAS HUTCHESON. 3-\$1.00 Each 35¢

A fine deep violet self; 22"; M.

GOLDEN CATERACT. 3-\$1.00 Each 35¢

A nice golden yellow with a vivid orange beard; 20"; EM*.

RE-BLOOMING IRIS COLLECTION

We will send you 18 separate varieties, all labeled, for ONLY \$5.75, our selection. This will make an attractive group for fall flowers.

EQUINOX. 3-\$1.00 Each 35¢

A reddish purple bicolor; 26"; ML.

FALL BEAUTY. 3-\$1.30 Each 50¢

Standards a nice bronze-brown with the falls a violet-blue; 48"; E*.

FROST QUEEN. 3-\$1.00 Each 35¢

A free blooming frosty white; 20"; M.

GLADSONG. 3-\$1.00 Each 35¢

An unusual variety; yellow ground pliata; 24 inches; M.

GOLDEN HARVEST. 3-\$1.00 Each 35¢

Olive and citron-yellow; 18"; E.

JANE KREY. 3-\$1.00 Each 35¢

A rich violet self with a red cast and a white beard; 30"; E.

KANSAS INGLESIDE. 3-\$1.00 Each 35¢

Rich toned self on the copper side; HM; 32 inches; Medium late.

KING JUNIOR. 3-\$1.00 Each 35¢

Same as Autumn King but in a deeper red; 30 inches; Medium.

LIEUT. de CHAVAGNAC. 3-\$1.00 35¢

Violet, bronze and cream; a dependable boomer; 15 inches; Early.

MARTIE EVEREST. 3-\$1.00 Each 35¢

A very choice variety in a uniform blue.

36 inches; Very early.

MRS. WALTER LAMB. 3-\$33.00 \$1.25

Mauve pigeon-throat standards and darker grey falls; very choice; 30 inches.

OCTOBER BLAZE. 3-\$1.25 Each 50¢

Deep dancing red; extra early; fragrant.

34 inches; Very early; fragrant.

OCTOBER OPERA. 3-\$1.00 Each 35¢

A pretty burgundy-red; fragrant; 18"; E*.

OLIVE WHITE. 3-\$1.00 Each 35¢

A beautiful deep cream color; 18"; E.

(See next Column for 3 more Varieties)

EARLY INTERMEDIATE IRIS

To lengthen your IRIS season the Intermediate type should be included in your Iris collection. As they usually grow from 18"-28" high they can be used in places where the taller varieties would not be suitable.

Their blooming season starts in May here in Michigan and continues into the early Tall Bearded season.

ABELARD. 3-\$1.00; 5-\$1.40. Each 35¢

A prolific variety; color bright mahogany; HM; 26"; E.

ARCHEVEQUE. 24"; M* 35¢

Very free blooming wine-red to black, a grape color with a very strong grape odor; noticeable in bouquets.

CHALLENGER. 28"; E 35¢

This is the richest black-purple; HM.

CRYSORO. 26"; E 40¢

This variety sometimes blooms again in the fall; rich yellow; HM.

DALILA. 24"; M* 35¢

Flesh and cherry; edged white.

DOXA. 18"; E 50¢

Lovely olive-buff with a greenish cast; nice.

ELIZABETH HUNTINGTON. 18"; M 50¢

Crinkled petals in medium blue color; different and pretty. 3-\$1.35; 5-\$2.00.

GAY HUSSAR. 3-\$1.25; 5-\$2.00 Each 50¢

A very pretty variety; variegata in Chrome and oxblood-red; 24 inches; M.

GLEE. 18"; E 35¢

A soft yellow with frilled petals; rather dwarf growing; AM.

IRIS KING. 3-\$1.00 Each 35¢

Old gold and deep brown-maroon, edged brown on the standards; AM; 24"; M.

KING KARL. 3-\$1.00 Each 35¢

Cream dotted with rose; very nice; AM.

SANGREAL. 3-\$1.00 Each 35¢

Slightly frilled yellow; nice; 28"; EM*.

SEPTEMBER SKIES. 3-\$1.00 Each 35¢

A dandy purple-red; fragrant; 18"; M*.

SOUTHLAND. 3-\$1.00 Each 35¢

Showy golden yellow; HM; AM; 24"; M.

ULTRA. 3-\$1.00 Each 35¢

Ultramarine-blue; pretty; HM; 25"; E.

WHITE AUTUMN KING. 3-\$1.00 ...35¢

snow white re-bloomer; good; 28"; EE.

IRIS SPECIES

SPURIA var. NOTHA. 3-\$1.35 Each 50¢

This resembles the Siberian Iris and this variety is a more robust type with leaves an inch wide, flowering stems 2-3 ft. and the flower is a shade of lilac; it resembles Glads and is excellent for cutting; Caucasus.

PSEUDACORUS FL. PL. 3-\$1.75 75¢

A rare double form of beardless Iris; rosette-like flowers in deep yellow.

The four kinds will be mixed or they can be had in separate lots. **CAPS-X4.** 35¢

KOCHII. 3-\$1.25 Each 50¢

A bearded species; early; fragrant; red-purple, yellow beard; AM.

RUTHENICA. 3-\$1.25 Each 50¢

A tiny light yellow self; bearded type; 4"; early. Should be in a dry, sunny spot; fragrance of Violets.

REICHEBACHII. 3-\$1.25 Each 50¢

Bright pale yellow; bright yellow beard; native of Servia; 4"; early bearded type.

TENAX. 3-\$1.25 Each 50¢

A bright lilac flower; the leaves form a dense tuft from short creeping rhizomes; 1 ft.; native of North Pacific Coast.

28 inches; M*.

LA NEIGE. 28"; M*
A pretty waxy cream-white.

35¢

MA MIE. 28"; M*
A pretty white frilled blue; AM.

35¢

NEHEWKA. 28"; M
A beautiful variety; darkest blue-purple plicata on white back ground.

40¢

RED ORCHID. 28"; E
Vigorous and prolific; brilliant ruby-brown with gold beard; HM.

35¢

INTERMEDIATE COLLECTION

15 different varieties of the above list my selection, all labeled for ONLY \$5.00; 10 for \$3.25; postpaid.

SPARK. 28"; E 35¢
A striking fiery brick red.

TAN TOY. 3-\$1.00 Each 35¢
A beautiful tan-brown color; 18"; ML*.

TITMOUSE. 3-\$1.00; 5-\$1.40 Each 40¢
An unusual Table Iris with beautifully formed flowers in amber-yellow, speckled and edged violet; 28"; M.

VALANCIA. 3-\$1.00; 5-\$1.40 Each 35¢
Ruffled flowers, orange-buff; 24"; ML.

WARBLER. 25"; M* 50¢
A pretty pure yellow; nice Table Iris.

WIDGET. 24"; EM 60¢
Table Iris; white plicata, speckled lavender.

ZUA. 3-\$1.25; 5-\$2.00 Each 50¢
A very unusual variety; the most crinkled and ruffled Iris variety; color pearl gray; 18 inches; E.

Our Cover Picture

William Robinson, the leading protagonist in the battle which took place in the late Victorian and early Edwardian era between the advocates for formal and informal gardening respectively, made himself a garden in Sussex which for many years stood as the prototype of the finest development of English gardening. The wide, undulating acres which surrounded the gaunt manor of Gravetye, a stone mansion built by an iron-master in the days when Sussex was a center of the primitive iron industry, were transformed by this master hand into a paradise of informal beauty.

The photograph on the cover of this issue depicts a house on the estate, Moat Cottage, at one time the residence of Ernest Markham, gardener for many years to William Robinson, and scarcely less famous than his illustrious employer. Markham was a man of wide knowledge and great gardening skill, and his work amongst Clematis still stand pre-eminent.

Moat Cottage is a late fifteenth century dwelling, built in oak timber and plastered walls, with a roof of stone slabs. Its picturesque walls form the perfect setting for the many beautiful flowering climbers which have been trained over them and the garden in the forefront has been allowed to riot into the colorful abandon of a typical English cottage garden, owing much to artifice, yet seeming to be a medley of naturally colored flower with little apparent evidence of the gardeners hand.

This scene will be familiar to those who have made the pilgrimage to Gravetye, at

(Continued on Page 352)

BOTANICAL BULBS FOR FALL PLANTING

Tulip Species

We list below rare and hard to secure species of Tulips, anyone of which will be an attractive addition to your garden; many of the small and dainty flowered kinds are recommended for the rock garden. If you have never grown these beautiful little flowers before, at least plant a collection of them this year, that you may be able to order your favorite next year.

TULIP.

PRICES: 25 and 50 at 100 Price; 6 at Dozen Price. Prepaid. Dozen

—*Acuminata*. 100—\$14.00 \$2.50

The Horned Tulip; long curiously twisted petals of red and yellow makes this little gem an interesting cut flower; 22".

—*Batalini*. 100—\$18.00 \$2.40

Charming in April, dainty flowers of pretty form and distinct color, soft chrome yellow with deeper yellow center, beautiful companion to *T. linifolia*; beautiful as it is rare; 6 inches.

—*Biflora*. 100—\$7.00 \$1.40

Probaby is the smallest Tulip grown bearing on branching stems small white flowers with yellow centers; give it a warm sunny spot in the rock garden for March flowers.

—*Chrysanthia*. 100—\$6.50 \$1.25

A pretty little species similar to *T. clusiana*, yellow with red on outside of petals; perfect drainage, warm place, with pocket of sand under each bulb; 16 inches.

—*Dasytemon*. 100—\$10.00 \$2.00

Very attractive low growing species, 3-5 flowers on a stalk, yellow edged with white, very pretty for rock garden; 6".

—*Eichleri*. 100—\$7.00 \$1.40

Large dazzling scarlet flowers with center of yellow, edged black and a most satisfactory flower in the border, lasting a long time; sun; 12 inches.

—*Fosteriana Red Emperor*. 100—\$11.00 \$1.25

This variety is beyond description, it has the largest flowers of any Tulip and claimed positively the best Tulip in cultivation; the loveliest shade of glowing scarlet imaginable, base yellowish; 22 inches.

—*Greigii*. Each \$2.00

One of the best wild Tulips, very beautiful with its glowing vermilion-scarlet flowers, with yellow base and large maroon-black blotches, flowers are large; give a warm place and sandy soil; 9 inches.

—*Hageri*. 100—\$12.00 \$2.30

Quaint little globular flowers of copper color with black base, edged yellow, now very rare; April flowering; 9 inches.

—*Kaufmanniana*. 100—\$7.00 \$1.25

Water Tulip. This is one of the finest botanical Tulips, being amongst the earliest to flower, April, color soft creamy white, center slightly marked with carmine red. The petals reflex upon opening and appear much like a *Nymphaea*; they are especially recommended for groups in the rock garden, where they will last and flower for years; 6 inches.

—*Scarlet Elegance*. 100—\$16.00 \$2.00

This is a very brilliant variety with its numerous small scarlet flowers with exterior orange-red, very early and well recommended; 5 inches.

—*The First*. 100—\$10.00 \$1.40

The earliest to flower of the Kaufmannian; deep cream-yellow passing to white exterior of flower scarlet; 8 inches.

—*Kolpakowiana*. 100—\$10.00 \$1.70

This has become rather rare; very pretty with slender stems and yellow flowers with exterior markings of red; 14 inches.

—*linifolia*.

100—\$9.00 \$1.25

One of the most beautiful of the dainty species flowering in April; small brilliant scarlet-vermilion flowers with black base; makes a beautiful sight with *Sedum glaucum* or in groups with the Batalini species in the rock garden; 8 inches.

—*Marjoletti*.

100—\$9.00 \$1.30

An especially fine cutting flower, soft red; 18 inches high.

—*Orphanidea*.

90¢ Each \$10.00

A very rare April flowering Greek species with orange flushed bronze and green center, 3 to the stem, the purplish foliage forming a rosette on the ground; 12 inches.

—*Ostrowskilana*.

Each 50¢

A really beautiful species with orange-red flowers gracefully reflexed petals on slender stems; 8 inches.

—*persica*.

100—\$20.00 \$4.00

Breyneiana. A very valuable rock garden species, late blooming, flowers glowing yellow with copper flushed on exterior, fragrant and produces several flowers on a stem; 8 inches high.

—*Praestans*.

100—\$9.00 \$1.75

An interesting April flowering species, producing 3-4 flowers per stem of the loveliest orange-scarlet imaginable; 16".

—*pulchellia humilis*.

50¢ Each \$5.00

This is a very rare and beautiful species which always attracts attention; Crocus-like flowers of a pretty violet-pink shade with very large and distinct yellow base making an ideal flower in the rock garden or border; 6 inches high.

—*saxatilis*.

100—\$18.00 \$2.40

Another very rare species from Crete bearing 1-3 pretty pure lilac flowers with a deep yellow center; plant where it will be dry during the summer or they may be lifted and stored in a dry warm place till planting time in the fall; 4 inches.

—*tarda*.

100—\$9.00 \$1.25

Dasytemon. A fine rock garden species, starry white flowers with yellow eye, 3-5 to the stem; exterior shaded green or grey; 6 inches high.

—*turkestanica*.

100—\$7.00 \$1.25

A very pretty species closely allied to *T. biflora* but more robust in habit and with 5-9 flowers on a stem, creamy white with a green or bronzy flush on the exterior and with great lasting qualities; 10".

Narcissus Species

The various species of Narcissus make a beautiful showing in both the border and the rock garden and every well planted garden should have specimens of each; they are all easily grown. If some sand can be worked into the soil during the summer months, before planting, that it will be on the 'loose' side, you will have a better growth on these small bulbs; this is especially true if your soil is clay.

PRICES: 25 at 100 rate; 3 at Dozen.

Postpaid. per Dozen.

—*bulbocodium*.

100—\$8.00 95¢

Hoop Petticoat Narcissus. This is a distinct yellow type with a long wide mouthed trumpet, shaped like an old fashioned hoop skirt; for a warm spot in the rock garden and a pretty dainty flower in pots; 6 inches high.

—*canaliculatus*.

100—\$9.00 \$1.00

Like a miniature *Polyanthus Grand Monarque* with several tiny flowers on a dwarf stem; very fragrant, small white petals and bright golden cup, interesting for the rock garden; six inches.

—*Cyclamineus*.

100—\$15.00 \$2.75

The Cyclamen-flowered Daffodil with small clear yellow flowers and a much

reflexed perianth.

—*triandrus albus*.

100—\$10.00 \$1.30

Angel's Tears Daffodil. Small rush-leaf Daffodil from Spain. An exquisite flower for the rock garden; slender growth and producing a cluster of elegant little creamy white flowers with globular cup and the perianth reflexing like the Cyclamen; 7".

Flowering Alliums

Flowering Onion. They are beautiful flowering subjects for the garden and many are especially fine for the rock garden, where small dwarf plants are wanted. They are easily grown and make an interesting display. We offer a very extensive list of these flowers in seed but the following species are easily secured in the bulb form.

PRICES: 25 at 100 rate; 3 at Dozen.

Postpaid.

Per Dozen.

—*albopilosum*.

100—\$10.00 \$2.00

Flowers lilac, 8 inches across in umbels; 3 feet high; Persia.

—*azureum*.

100—\$6.00 \$1.40

(caeruleum) Flowers deep blue in dense globe umbels 2 inches across; 4 feet.

—*Moly*.

100—\$6.00 \$1.40

Bright yellow, star-like, in many flowered umbels 3 inches across; 18 inches high.

—*neapolitanum grandiflorum*.

\$1.00

100—\$5.00. White flowers in umbels 3 inches across; 1 foot high.

—*Ostrowskianum*.

100—\$5.00 \$1.00

Maroon flowers; 6 inches; Turkestan.

—*Rosenbachianum*.

100—\$9.00 \$1.60

Purple flowers in large globe umbels; 2 feet; Turkestan.

—*sphacelatum*.

100—\$6.00 \$1.30

Reddish purple flowers in dense globe umbels; 3 ft.

Eranthis

Winter Aconite. The earliest of Spring flowers; golden Buttercup-like flower, resting on emerald-green cushions of leaves that produce a charming and pretty effect in the very early days of Spring when planted with Snowdrops, *Chionodoxa*, *Scilla siberica*, etc., wonderful displays can be had. They do best in shady places, under trees and in moist spots where few other plants will thrive, where it will densely carpet the ground with its bright green foliage. It increases readily from seed; plant about 3 inches deep and 4 inches apart; order early and plant immediately upon receipt, they must be planted early.

—*ciliata*.

100—\$4.00 50¢

A very lovely species from Asia Minor, deep yellow, foliage bronzy and more finely cut than *E. hyemalis*, and later.

—*hyemalis*.

100—\$4.00 50¢

Very early; bright golden yellow flowers.

—*Tuberigenii*.

100—\$11.00 \$2.00

A very pretty new hybrid with large golden yellow flowers that, being sterile, last much longer.

Fritillarias

They produce a fine effect when naturalized in the grass on banks, in shady places or under large trees and are especially charming in groups in the border and rock garden; they bloom in May; plant 3-4 inches deep, 3 inches apart and immediately upon receipt. Order these early and it is advisable to mulch when possible, the first winter. They last indefinitely when once established. Common names Checkered Lily, Guinea Hen Flower.

—*alba*.

100—\$5.00 75¢

BOTANICAL BULBS FOR FALL PLANTING

A pretty white with checkers of greenish yellow.

—**Aphrodite.** 100—\$5.00 80¢
This is a strong growing pure white.

—**Artemis.** 100—\$5.00 80¢
Very fine large-bell variety in two tones of wine color.

—**Poseidon.** 100—\$7.00 \$1.30
Very large flowers on short 6" stems, whitish checkered purple.

—**Saturnus.** 100—\$5.00 \$1.00
A pretty effect in pinkish checkering, large flowers.

Galanthus

Snowdrops. Permanent planting should be made in partly shaded spots for they flower very early in the Spring; under the shrubbery border, in the lawn and woodland, they make a fine display; plant them thickly; the bulbs arrive in August, so they should be ordered early.

—**Nivalis, Single.** 100—\$6.00 90¢

—**Nivalis, Double.** 100—\$6.00 90¢

Ixias

African Corn Lily. Exceedingly free flowering, very graceful, bearing on wiry stems, long racemes of bloom; they increase rapidly; invaluable for cutting, easily grown in pots and produce a combination of colors not found in other plants. Plant bulbs from October to December, 2" apart and 3" deep in prepared light loamy soil, in a sunny position, protected from cold winds; cover with coarse sand and mulch with coarse straw but remove in March.

—**Afterglow.** 100—\$4.00 80¢
Orange-buff, exterior bronzy; attractive.

—**Azura.** 100—\$5.00 \$1.00
Distinct shade of blue with purple center.

—**Bridesmaid.** 100—\$4.00 75¢
White flowers with a carmine eye.

—**Hogarth.** 100—\$4.00 80¢
A large creamy yellow, purple eye.

—**Hubert.** 100—\$5.00 90¢
A free flowering coppery red, shaded violet.

—**Wonder.** 100—\$5.50 \$1.00
A distinct variety, brilliant pink, double flowers.

Ixiolirion

A bulbous plant from Asia, with narrow basal leaves, the flowers in umbels. It is best to store the bulbs inside over Winter.

Flowers lilac, 1½ inches long in 4-6 flowered umbels.

Muscati

Grape Hyacinths. These are so easily grown and make such pretty displays, that every garden should have a planting of them; usually the common Grape Hyacinths will be found in the old gardens but the newer varieties are far superior in color and flower, that one should try at least one variety each year for naturalizing as they multiply rapidly and not easily killed out. Plant them 2-3 inches deep and about 2-3 inches apart; full sun.

—**armeniacum.** 100—\$5.00 90¢
Early Giant. Brilliant blue, improved variety and a fine pot plant as well.

—**azureum.** 100—\$4.50 80¢
Hyacinthus azureus. Dainty little spikes of Cambridge-blue, in Feb.; charming in the rock garden or on grassy banks.

—**azureum amphibolus.** 100—\$7.00 95¢
Freyianum. Delicate pale blue, flowering after H. azureum.

—**botryoides.** 100—\$4.00 80¢
Best known of the Muscari, each bulb sending up 2 flower stalks bearing light blue flowers that smell like ripe plums.

—**album.** 100—\$5.00 95¢
White Grape Hyacinths. Pretty little fragrant pure white flowers, fine for the rock garden or in pots.

—**comosum.** 100—\$4.50 90¢
The Tassel Hyacinth. Greenish flowers with purple tops.

—**plumosum.** 100—\$4.00 80¢
Feathered Hyacinth. Most unusual and fascinating flower, of soft purplish filaments or threads curiously twisted and curled; good indoor plants; June.

—**latifolium.** 100—\$5.00 90¢
A very distinct and rare species; upper part of flower pale blue, lower dark blue.

—**paradoxum.** 100—\$5.00 95¢
Starch Hyacinth. Very distinct with a large, nearly black flower of good size and form.

Ornithogalum

Bulbous plants of the Lily Family; the hardy kinds can be grown in Michigan but the tender South African species should be grown indoors in the North.

—**nutans.** 100—\$5.00 95¢
These have grayish green flowers.

—**umbellatum.** 100—\$4.00 95¢
Star of Bethlehem. Flowers are white with a green margin, one inch across; they grow very freely with us even in grass.

PUSCHKINIA. (push-KIN-e-ah) A small bulbous plant of the Lily Family, with flower heads not much different from little blue Hyacinths. Their culture is the same as for Scillas.

—**libanoica.** 100—\$4.50 95¢
Pretty lavender-blue flowers, 5 inches high.

Scillas

Charming early spring flowers, planted either in masses or as edging in the border or beds; dwarf, compact and they can be grown in pots or bowls indoors. Plant it in generous quantities. There are different types as will be noted under the descriptions; the taller varieties are especially nice in the border, either in shade or full sun.

—**bifolia.** 100—\$3.00 80¢
Dwarf deep blue blooming with Winter Aconite in February; excellent in masses or in the rock garden.

—**campanulata alba maxima.** 100—\$5.00 90¢
Wood Hyacinths. Flowers in May and best for naturalizing in the woods, wild garden, shrubbery, etc., and thrives in very shady places; pure white.

—**Arnold Prince** 100—\$5.00 95¢
Long trusses of deep rose.

—**Blue Queen.** 100—\$4.00 90¢
An early pale blue; large flowered.

—**Excelsior.** 100—\$4.00 90¢
A very strong grower; extra large bold spikes of bright blue.

—**Peach Blossom.** 100—\$5.00 90¢
Large peach-blossom blooms.

—**White Triumphator.** 100—\$5.00 90¢
A very robust variety producing pure white flowers; extra good.

—**sibirica.** 100—\$5.00 90¢
Siberian Squill. Bright blue flowers, dwarf and compact habit making them excellent for pot culture; they are fine in the garden for early Spring flowers.

—**Spring Beauty.** 100—\$5.00 90¢
A new introduction with flowers twice the size of the species; the flowers are sterile and thus last longer; a lovely Delphinium-blue of upright habit.

Daffodils

Those listed below are the large regular type Daffodils.

Postpaid. Per Dozen.

—**KING ALFRED.** 100—\$10.00 \$1.50
This beautiful yellow trumpet variety is at the head of its color class; rich deep golden yellow; large gigantic trumpet elegantly frilled at mouth and a broad massive perianth. It is long standing and easily forced; one of the earliest to bloom.

—**REMBRANDT.** 100—\$12.00 \$1.50
A very early large golden yellow trumpet of lovely carriage; petals are flat, broad and somewhat pointed; trumpet is expanded and nicely flanged at the mouth; a vigorous grower and excellent for pots and showy in the garden.

—**FORTUNE.** 100—\$12.00 \$1.50
New Giant Incomparabilis and recognized as the best variety in its class. It is a beautiful lemon-yellow with a splendid flat overlapping perianth; the cup is long and a coppery red-orange; stems 2 feet; early and fine in every point.

—**HELIOS.** 100—\$9.00 \$1.25
The perianth is a deep golden yellow, the cup opens a little darker than the petals and gradually changes to a deep orange color; it is excellent for both forcing and for the garden.

—**JOHN EVELYN.** 100—\$10.00 \$1.50
An outstanding Incomparabilis producing large exhibition blooms measuring 4 inches across, solid creamy white perianth, cup large and well open at mouth with double frilling at margin and of striking apricot-orange color; excellent for the garden.

—**SCARLET ELEGANCE.** 100—\$10.00 \$1.40
This is one of the first to bloom in the spring; noted for its deeply colored scarlet crown, perianth deep yellow; fine for cut flowers and forces after Jan. 15th.

—**GERANIUM.** 100—\$10.00 \$1.40
A very nice Poetaz Hybrid of great beauty, bearing heads of 5-7 flowers to the stem; broad pure white petals and a bright scarlet cup. It makes an excellent cut flower and forces after Feb. 15th.

—**SCARLET GEM.** 100—\$9.00 \$1.30
This positively one of the best Poetaz Narcissi yet raised; it is very showy, free-flowering; with primrose-yellow perianth and brilliant orange-scarlet cup; a very lovely flower.

—**TWINK.** 100—\$11.00 \$1.50
The best of the double kinds; a pale primrose, flushed white, center a deep orange-red; showy in the garden and an easy grower.

—**FEBRUARY GOLD.** 100—\$15.00 \$1.50
With us this grows as a sort of a miniature, 10 inches high with pure golden flowers; its value is especially in the rock garden where one wishes a mass of gold color for accent. It is very nice.

—**SULPHUR STAR.** 100—\$9.00 \$1.50
A showy sulphur-yellow of medium size especially showy in the garden where a light yellow is wanted; the petals are pointed and resemble stars.

NOTE: PINK DAFFODILS.
We have offered a collection of the new Pink Daffodils in the past but due to lack of the latest prices on them, they will be listed in the regular seed list.

Iris Germination

A good illustration of delayed germination of seeds occurred this Spring with a lot of Iris Kerneriana that was sent to us by Mr. Anderson of the Alpine Garden Society of England. This seed was received in 1949 and must have been 1948 seed. It was planted in 1951, with no signs of germination till this Spring, when every seed grew. They were in an out door seed bed and covered with sand.

Annuals as a rule have few difficulties in germination but the perennials and especially seed of trees and shrubs, have many variations and to germinate them is a good part in raising them. Seed beds should be made so that sowings can be left undisturbed for one to three years.

Bright and attractive colors in flowers are natures method of attracting insects to a flower, that it may be fertilized.

OUR FRONT COVER PICTURE

(Continued from Page 349)

one time the Mecca of garden lovers from all over the world, but now, alas, falling into the decay common to so many of Britain's historic gardens.

Times have changed in Britain of late and its future, as far as the famous gardens are concerned, at least, is over. Most all of the large estates were made possible by England's colonial empire, where thousands of Englishmen held high salaried positions and were also pensioned at early periods in life; this was also possible in the armed forces as will be readily noted by the many army and naval titles amongst English garden lovers.

In this country, where we should by rights of our own industry, have plenty of gardens, we are losing these rights thru our outlandish government expenditures resulting in high taxes; thus less time and money for the beautiful things in life.

PRUNING THE LILACS

To have beautiful Lilacs it is very necessary that they receive proper pruning every year.

This should be done immediately after the flowers have faded. Pruning in early Spring or even in late Summer, destroys the flower buds for next year's flowers.

The main object in pruning the Lilac is to keep the bush within bounds, for if left to itself, especially the named varieties, they grow to such a height that they are unsightly.

Cut out unnecessary growth and keep the main stems rather open and the whole bush in balance, pruning so that new growth will fill in open spots. The flowering shoots should be cut back each year, because two new shoots usually grow each year from the flowering point. Eventually this will overbalance the bush if left alone.

Of course, cut out all dead branches and when possible, on old bushes, train a new branch from near the base, to take the place of any old branch, likely to die.

The flowering buds should be thinned out some because if there are too many for the bush, only inferior blossoms will result.

Plants whose flowers are fertilized by the wind are never noted for their bright colors or attractiveness, for there is no need for them to be noticeable to induce insects to visit them and pollinate their flowers.

Flowers that are pollinated at night are either white or yellow; reds and blues are difficult to locate in the darkness.

Key to Gypsophila Species

The following key to the cultivated species of the genus *Gypsophila* was prepared by Dr. G. H. M. Lawrence, director of the Bailey Hortorium and appeared in the first issue of *Baileya*, just received and is copied, with permission

The genus *Gypsophila* belongs to the family Caryophyllaceae (the Pink Family) and contains, among other well-known species, the Baby's-breath. Some species are rock-garden subjects and others are annuals for cutting, or are perennials for the border.

1. Plants 24-36 inches high or more.
2. Flowers in dense head-like cymes.
3. Flowers in loose open paniculate cymes.
4. Lower leaves about twice as long as wide.
5. Lower leaves 4-8 times as long as wide.
6. Leaves (at least the lower ones) usually 3-5-nerved, mostly 1.2-3.0 cm. wide.
7. Leaves linear, somewhat 3-sided; flowers pink to purplish. *G. Gmelinii.*
8. Leaves lanceolate to oblong-lanceolate, flat; flowers white.
9. Leaves perfoliate; inflorescence sometimes hairy.
10. Leaves not perfoliate; inflorescence always glabrous.
11. Leaves fleshy, lower ones obtuse; calyx segments linear. *G. Rosejeka.*
12. Leaves thin, all acute; calyx segments broadly elliptic. *G. paniculata.*
13. Plant 3-12 (rarely to 18) inches high.
14. Duration annual.
15. Leaves lanceolate.
16. Leaves narrowly linear.
17. Duration perennial.
18. Leaves not glabrous, at least not so above.
19. Foliage pubescent throughout.
20. Foliage viscid (sticky) above, glabrous beneath.
21. Leaves glabrous.
22. Plants densely cushion-forming, to 2 inches high; leaves somewhat 3-sided in cross-section, obtuse. *G. acutifolia.*
23. Plants not as above, but may be mat-forming; leaves flat, usually acute.
24. Inflorescence dense and congested; leaves mostly more than 1 inch long.
25. Flowers in dense corymbs; calyx green. *G. fastigiata.*
26. Flowers in terminal heads; calyx violaceous. *G. transylvanica.*
27. Inflorescence loose and open; leaves mostly less than 1 inch long.
28. Plant erect or clump-forming, stems less than 3 inches high.
29. Plants prostrate, stems ascending to 4-10 inches high.
30. Leaves green; calyx 5 mm. long. *G. repens.*
31. Leaves glaucous (bluish); calyx 2.5 mm. long. *G. Sievenii.*

G. Oldenhamiana.

P. pacifica.

G. acutifolia.

G. perfoliata.

G. Rosejeka.

G. paniculata.

G. elegans.
G. muralis.

G. cerastioides.
G. viscosa.

G. fastigiata.

G. transylvanica.

G. Sievenii.

Schwerdtfeger Begonia Seed

The following Begonia listings are Louise Schwerdtfeger's seed. We can supply seed in many unlisted species as well as hybrids and if you should be especially interested, drop us a postal.

- acutangula*. Tall fibrous cane-type; stems angular, well branched; lvs glossy green with lighter veining, red beneath; fls small white in large clusters **BEG-5. 50¢**
- acutifolia*. (acuminata) Everblooming, well branched; fls white tinged pink; intermediate fibrous; similar to Lady Waterlow. **BEG-7. 50¢**
- Boweri major*. Larger and more robust than Boweri, with less distinct markings; inclined to hang; white flowers. **BEG-19M. \$1.00**
- circumblobata*. **BEG-27. \$1.00**
- angularis*. (zebrina) Tall fibrous, branches drooping; lvs pointed, green with gray veins; fls small, white, clustered on short stems. **BEG-29. 50¢**
- Dregei v. Macabthii*. Small leafed semi-tuberous; many branched; lvs dainty maple-shaped; fls white in clusters close to the foliage. **BEG-46. 50¢**
- episipa*. Thick leathery leaf, bronzy red beneath; flowers white; excellent bloomer; good hanging basket type. **BEG-52. \$1.00**
- evaniana-alba*. Tuberous; lvs red underneath; flowers large, white; stands a little taller. **BEG-48. 75¢**
- foliosa*. Early Columbian species; bushy fern-like fibrous; stems and branches arching; small lvs; tiny white fls tinged with pink on thread-like stems **BEG-58. \$1.00**
- Francesii*. **BEG-58. \$1.00**
- Kellermanii*. Entire plant covered with white surf; fibrous; suede-like peltate lvs, cupped; flowers light pink. **BEG-79. 75¢**
- incana*. Thick stemmed fibrous; few branched; lvs leathery covered with tomentose; epilate; large white flowers on arching stems. **BEG-90. \$1.00**
- incarnata-Sandersi*. The sturdy incarnata; bushy small leafed fibrous; well branched, narrow, pointed light green lvs; large pink fls in terminal clusters. **BEG-91. 75¢**
- involucrata*. Thick stemmed fibrous; soft hairy lvs, light green, lobed; flowers in compact clusters. **BEG-94. \$1.00**
- metallica*. Erect, fibrous; bushy, hairy leaf, in deep olive-green with a metallic sheen; purple veined above, red beneath; fls large bright pink, darker pink and bearded without; on short stems. **BEG-104. \$1.00**
- rozelii*. **BEG-136. 50¢**
- rubro-venia*. Intermediate fibrous; many branched; lvs pointed, satiny green, sometimes red beneath; flowers greenish white. **BEG-140. 75¢**
- Scharffiana*. Low growing, spreading; fibrous; stems red, hairy; lvs densely covered with white hair, red underneath; new lvs like pink plush; fls pink **BEG-147. 75¢**
- Schmidtiana*. Brazil dwarf fibrous; many branched; lvs rounded, dark green, soft hairy, under margin of maroon; fls white in heavy clusters. **BEG-150. 50¢**
- subvillosa*. Medium sized succulent; leaves green; flowers white, hairy on outside, in drooping clusters. **BEG-157. 50¢**
- Begonia Blend*. A wonderful opportunity to secure many rare and hard to find species, including the above, Rex, and many others. **BEG-XX. 50¢**

TOP SELECTIONS OF BEST LILIES

(Continued from inside Front Cover)

ELEGANS SEEDLINGS. .50 5.50 10.00

These pretty hybrids come in varying shades of apricot through orange to red with mahogany spots; 18"; June; cover 4"; delivery October.

FIRE KING. 2.00 15.00 30.00

Here is a very rare lily that we can offer at an attractive price as it is a good multiplier easy to grow and one of the best hybrid Lilies. Recurved blooms, vermillion-scarlet, held horizontally to the stem in an attractive arrangement. A group of these is beautiful; July; 4 ft.; cover 5"; delivery in October.

FORMOSANUM. .50 5.00 8.00

(Wilsonii). Lovely large trumpets, white with green throat and suffused externally wine-red; fragrant and longest flowering period of any Lily; Sept. till frost; cover 5 inches; 12" apart; full sun; Late Nov.

GALAHAD. 4.00

One of the new hybrid trumpet Lilies from crosses between *Sulphureum* *Sargentiae* and *Regale*; it is a lovely shade of sulphur-yellow, blooming late in the summer and carrying up to 14 blooms in a pretty pyramidal raceme. Cover 6"; 5 ft.; August; delivery in November.

GIGANTEUM HIMALAICUM. 3.00 20.00 40.00

Huge woodland giant, 6-12 feet tall with 10-20 large trumpets, 7-8 inches long; white tinged with green externally and suffused red-purple inside. It is truly a majestic Lily; grow in partial shade with no hot sun ever reaching them, in a deep woodland loam full of humus and ONLY an inch of soil over the bulb; do not mulch but in the far North they can be covered with evergreen branches; plant 18-24 in. apart; delivery in October.

GOLD CREST. 3.00 23.00 45.00

An interesting small flowered Lily from a cross between *Tenuifolium* and *Golden Gleam*. The flowers are unspotted, golden orange, slightly deflexed and carried in a crown at the top of the stem; 2 ft; late June; delivery in October.

GRACE MARSHALL. 1.75 10.00 20.00

One of the Preston hybrids, a lovely deep red, recurved with a few dark spots, 5 ft; July; the flowers are outward facing with as many as 30 blooms on a plant; cover 6"; delivery in October.

HANSONII. .80 7.00 13.00

This is an exceptional garden variety both for its beauty and its easy cultural requirements; bright orange-yellow, flaked brown, slightly recurved medium sized flowers; grow in partial shade to avoid damage to color; 5 ft; June; cover 5"; set 1 ft. apart; delivery in October.

HENRYI. .90 7.00 14.00

The Golden *Speciosum* Lily. Recurved blooms in a soft golden orange-yellow with green central lines along each petal and with a few brown spots. It is not hard to grow; best in partial shade; fine in groups; August; cover 6"; 12-15" apart; del. Nov.

LILLIAN CUMMINS. 1.00 9.00 18.00

A fine new hybrid with large reflexed blooms in a bright orange-red with a few garnet spots. The flowers are held almost horizontal. A vigorous grower, blooming in July; 4-5 ft; cover 6"; 1 ft. apart; sun or partial shade; delivery in October.

ESTATE. .70 7.00 13.00

Longiflorum. Hardy Easter Lily. A large white trumpet Lily that is good for both growing indoors or outside; it is not hardy in the Dakotas but is in Michigan. In the greenhouse it produces large flowers and is easy to grow. It is an all-round Lily; 4-6 ft; cover 6"; 12-15" apart; delivery in October.

MARHAM. 2.50 24.00 45.00

A *Martagon* *album* x *Hansoni* hybrid with lovely flowers of buttercup-yellow, shaded and dotted oxblood-red. It is a vigorous hybrid, healthy and easily grown; partial shade; 4 ft tall; late June; cover 5 inches; delivery in October.

MAXIMOWICHI WADAI. .40 5.00 9.00

Early Tiger Lily. A refined Tiger Lily, healthy, easily grown; recurved, large deep orange-red flowers spotted mahogany; 6 ft; July; cover 5"; 12" apart; delivery Sept.

MAXWELL. .50 5.00 9.00

This hybrid is unsurpassed for all-round dependability in the garden and will produce up to 40 blooms on established plants. They are medium recurved in a brilliant orange-red, lightly dotted black. It grows 6 ft. tall; flowers in July and should be in every collection; cover 5"; 1 ft. apart; sun or partial shade; del. Oct.

MAHOGANY. .50 5.00 10.00

A deep mahogany-crimson variety of *L. elegans*; Very attractive June lily; erect; 15-18 inches tall; cover 4"; October.

MOSQUITO. .80 8.00 14.00

A Preston hybrid with lovely small recurved golden orange flowers having a few dark dots. It is very similar to *Davidii* in color and shape and is very effective; 4 ft; July; cover 4"; delivery in October.

PARDALINUM. 4.00 4.00 8.00

Sunset Lily. A very hardy native Lily from the Northwest, easily grown and best partial shade and well drained moist soil. The bloom is Marrittion-like, recurved, medium, deep orange-red, shading to crimson at the petal tips; mahogany spots; 6 ft; June-July; cover 6"; 12" apart; del. Oct.

PARIAN GIGANTEUM. .50 5.50 11.00

One of the easiest Lilies to grow, a giant, vigorous and increases rapidly. The flowers are giant recurved, in a brilliant crimson and golden yellow, shading to orient red at the petal tips and profusely spotted a brown-purple-amber color. It stands eight feet high and with as many as 30 flowers per stem and needing no staking. Sun or partial shade; July; cover bulbs 3"; 18" or more apart; delivery in October.

PHYLLUS COX. .80 7.00 13.00

A Preston hybrid of outstanding color, brilliant orange-red deepening towards the tips with the outside petals a lovely golden

orange and dotted garnet-brown; sun or partial shade; 3-5 ft; July; cover 6"; Oct.

G. C. CREELMAN. 2.50 24.00 44.00

Princeps. This is considered one of the best of the *Regale* x *Sargentiae* hybrids, with trumpet type flowers late in July.

White flower with canary-yellow throat shading externally brownish lavender; full sun or partial shade; 6-8 ft; cover 6"; 12" apart; delivery in October.

RED BIRD. 2.50 19.00 40.00

In this striking new hybrid introduced in 1949, the flowers face outward with as many as 15 on a stem; 5 ft. tall. It blooms in late July when most Lilies are out of flower. Medium, dark red, shaded lightly with Tigrinum-rose and spotted darker; 5 ft; cover 5"; 12" apart; delivery in Oct.

REGALE. .40 4.00 7.00

The Regals are the most popular of all the Lilies and it has been said that if you can have but one Lily, than it should be a Regal. It requires the least care and flowers year after year, and for the average grower, no Lily surpasses it. They should be planted in masses for a striking effect.

The flowers are trumpet-shaped, white with canary-yellow throat shaded externally spindel-red; 4-6 ft; June-July; cover 6"; delivery in October.

Ask for best prices by the hundred.

RUBELLUM. 1.00 10.00 19.00

A lovely small rose-pink Lily that flowers early in May and into June, growing 2 ft. tall. It grows in light shade where there is plenty of humus; a sandy loam is good. Flowers funnel-shaped and delightfully fragrant; cover 4"; delivery in Oct.

SCOTTIAE. .70 7.00 13.00

A Canadian hybrid with flowers facing outwards, recurved, large brick red with mahogany spots; blooms in May and into June; 3 ft; cover 5"; delivery in October.

SPECIOSUM ALBUM. 1.75 13.00 27.00

(Kraetzeri Form) A choice form of the pure white *Speciosum* Lily; green stripes in the middle of the petal; a beautiful Lily; 4-5 ft; cover 5"; 12" apart; delivery Nov.

SPEC'M MAGNIFICUM. .80 8.00 15.00

Pink Show Lily. A deep carmine-pink, dotted crimson and larger flowered, more robust than *S. rubrum*. It is one of the very best Lilies for the border as all *Speciosums* are not too exacting as to their cultural needs; 5 ft; August; delivery Nov.

SUPERBUM. .50 5.00 10.00

A native species high in the list of good Lilies. The flowers are recurved, large, bright orange-red, suffused yellow with red tips and brown dots, in a true Turk's-Cap form. It prefers a moist well drained soil with plenty of humus and in partial shade; 6 ft; July-August; cover 6"; delivery in October.

TENNUIFOLIUM. .40 3.00 6.00

(Pumilum) The gayest of the little Lilies and among the first to bloom. It is bright scarlet; Turk's-Cap type flowers on wiry stems; they are very pretty. June; 2 ft; cover 3"; full sun; delivery in September. Ask for quantity prices; pretty in masses.

HARRY E. SAIER, DIMONDALE, MICHIGAN.

OUR BEST PINK DAFFODIL OFFER

ANTIBES..... Each 40¢

The trumpet is pale apricot, shaded salmon and orange when opening, later shading to a soft pink; strong white perianth

BIRRITZ..... Each 40¢

When opening, the trumpet is a pale Buttercup-yellow with a broadly fringed and apricot shaded edge, when fully developed the trumpet becomes a clear apricot-pink. Perianth is pure white; a strong grower.

CANNES..... Each 40¢

The trumpet or cup is medium in size, slightly flaring, soft canary-yellow most interesting pink ruffles on the edge of the cup. A good, stiff stem; white perianth, somewhat inclined to turn backwards.

CHAMPAGNE..... Each 60¢

The trumpet is large and pale cream-pink with a broad overlapping ruffled edge. When in full bloom the color turns to salmon-pink. It has a strong stem and free flowering; one of the first to bloom. Pure white white perianth of good substance.

LADY BIRD..... Each 45¢

The large trumpet is distinctly pink and flaring, evenly ruffled, pale apricot outside, deep orange-apricot inside at opening, deepening towards the throat. Perianth white and of perfect form; strong stem; it resembles Daisy Schaffer in form and size. A most outstanding variety.

MENTONE..... Each 45¢

Perianth white, the trumpet apricot, shaded pink outside, which is fringed and of a lovely tangerine orange and rose color; inside somewhat stronger in color than the outside. When fully developed the flower turns to a nearly clear pink; cup

Collection of all
15 Varieties of the
World's best Pink
Daffodils for only
\$7.00 Postpaid

length is about $2\frac{1}{2}$ inches and it is 2 inches wide. Outstanding.

PINK BEAUTY..... Each 45¢

White perianth, slim, long trumpet of apricot-yellow, with a somewhat darker edge, later becoming salmon-pink.

PINK FANCY..... Each 25¢

White perianth, well formed, with a pale apricot trumpet, broadly fringed soft pink. Free flowering and excellent for naturalizing.

PINK FAVORITE..... Each 30¢

Pure white perianth. The trumpet is at opening pale yellow, soon turning to a most beautiful apricot pink somewhat darker inside.

PINK GEM..... Each 40¢

The trumpet is a lovely clear salmon-pink turning to a clear pink when fully developed, somewhat darker inside the trumpet and lighter towards the perianth; perianth white.

PINK GLORY..... Each 70¢

The "Orchid" among the Pink Daffodils. Pure white perianth, somewhat loose but graceful, with an exquisite long trumpet opening light Indian-yellow but soon shading to a lovely pink, inside deep pinkish apricot remaining so till the end. Without any question the most beautiful "Pink" ever raised. When used as a corsage with some Asparagus green it is as delicate as an Orchid.

PINK RIM..... Each 40¢

This variety draws attention wherever shown. It is quite distinct from all others; with a tall stem. Stiff, pure white perianth of good form, the cup is a pale citron-yellow with a very distinct light picotee-pink rim.

PINK SELECT..... Each 40¢

Pure white perianth. Opens pale yellow, soon turning to a lovely pink with apricot shading but mostly pink when fully developed. The trumpet is nearly 2 inches long and 2 inches wide. An excellent stem.

ROSY SUNRISE..... Each \$1.00

The Queen of the New Pink Novelties". Pure white perianth of good substance, with a lovely and large, strongly fringed trumpet of pure salmon-apricot with a distinct rose-pink shading. The inside of the trumpet turns to a soft Indian-yellow when fully developed. The color of this variety is rather difficult to describe.

SIAM..... Each 40¢

The trumpet is wide and flaring apricot, changing gradually to a soft pink. The perianth is pure white, well formed and of good substance. It is the giant among the "Pinks" and it will be one of the leaders in this class as soon as it becomes better known.

WHAT OTHERS SAY ABOUT THE COLLECTION

BETTER THAN AT FLOWER SHOW

I liked your Pink Daffodil Collection very much but still better after seeing the Men's Garden Club Show at Toledo this Spring. My Pink Daffodils could easily taken the prize. My first choice is Siam, so white and large, the perianth and trumpet a soft apricot changing to pink. It was long lasting. My second choice is Cannes with the curved white perianth and yellow trumpet ruffled at edges with delicate pink. All 15 varieties had beautiful colors and hard to pick a "first".

Mrs. L. K., Toledo, 7, Ohio.

SIMPLY SUPERB

All of the Pink Daffodils in your Col-

THESE BULBS WILL HAVE TO BE ORDERED EARLY FOR THE SUPPLY IS ALWAYS SOLD BEFORE THE SEASON IS OVER. ALL 15 VARIETIES, NAMED, FOR ONLY \$7.00, PREPAID

lection were simply superb. My favorite was Rosy Sunset as the color is so much more intense than the others but they were all large, healthy and beautiful.

Mrs. E. A. S., Seattle, Wash.

A GOOD INVESTMENT

All the varieties in your Pink Daffodil Collection were very nice and I have enjoyed them immensely. I feel they were a worthwhile investment.

Mrs. H. S., Woodstock, Vt.

THE BEST BARGAIN

The Pink Daffodil Collection was the best bargain I ever bought in the flower line. I liked Champagne, Mentone and Pink Glory the best; but there were not any that I did not like. They are all beautiful and were even better the second year.

Mrs. V. K., Mount Vernon, Ind.

LIKED ROSY TRUMPET

I liked Rosy Trumpet best Mrs. R. O. Backhouse and Pink Glory next. Antibes, Biarritz, Pink Beauty and Pink Rim seemed superior to Mrs. Backhouse.

Mrs. D. O. deG., Portland, 12, Ore.

HARRY E. SAIER **DIMONDALE, MICHIGAN.**